

AUG 20 1941

The Newspaper of the Industry

Issued Every Wednesday at Detroit, Michigan

August 20, 1941

Single Copy—20 cents. \$4.00 Per Year

Vol. 33, No. 16, Serial No. 648. Established 1926

Written to be Read on Arrival

Member Audit Bureau of Circulations  
Member Associated Business Papers

# Air Conditioning & REFRIGERATION



# NEWS

Registered as second-class matter October 3, 1926 at the post office at Detroit, Michigan, under the Act of March 3, 1879.  
Trade Mark Registered U. S. Patent Office. Copyright, 1941, by Business News Publishing Co.

## Write Your Congressman: "Refrigeration Is Essential To America's Health"

**R**EFRIGERATION is staggered under a series of body blows, some of them below the belt, inflicted by people down at Washington. The reason is that both Congress and the Administration classify refrigeration simply as "durable goods." Durable goods, to them, are items which must be taxed and restricted severely because they "compete" with the armament industries.

Look at some of these handicaps: 50% production cut, drastic curb on instalment selling, withdrawal of needed materials such as aluminum and copper, and a 10% tax.

In normal times anyone of these blows would have evoked a howl that would have been heard clear up to the star Arcturus. But now we simply take them all and leave our chins

exposed for more, under the vague theory that we should "cooperate for national defense."

But it isn't patriotic to allow the nation's refrigeration facilities to deteriorate. And while we "cooperate," other more realistic, more hard-headed interests are using "defense" to feather their own nests, and to obtain competitive advantages.

It's no accident that so many

things have happened to us, nor can we blame the New Dealers altogether. Some of those ideas have been "planted." We are living today in an era of rule by pressure groups. And if we don't become a pressure group ourselves, some of the others will elbow us out of the way.

Ice refrigerators aren't being taxed. Ice refrigerators haven't suffered a production cut at the

hands of Mr. Henderson. Washing machine production has been cut only 30%. Gas ranges aren't being taxed, although electric ranges are. Why? Why? Why? Why this discrimination, this favoritism? Answer: politics!

The one way to get at the Administration, in an attempt to ward off any more blows, is through Congress. For a change,

(Concluded on Page 14, Column 3)

## G-E Will Ask 'Why No Tax on Gas Appliances?'

BRIDGEPORT, Conn.—In a letter to its distributors throughout the country, General Electric Co. is urging the heads of these companies to file protests with their senators and representatives at Washington, D. C. that the proposed excise tax schedule discriminates against electrical appliances.

The protest is based on the fact that the pending schedule fixes a 10% excise tax against electric ranges and water heaters, but not against gas ranges and water heaters.

The letter to distributors points out that nine states have more than 100,000 electric ranges in use, compared with 23 states with more than 100,000 gas range users, and that in seven states there are more electric than gas ranges being served by utility companies.

A million electric water heaters are now in use in this country, the communication states, and more than a million electric ranges.

General Electric is not protesting the proposed 10% excise tax on electrical appliances, the letter emphasizes, but feels that it is discrimination when gas appliances of the same type are free from such taxation.

It is anticipated that G-E distributors in many sections of the country will ask their dealers to join in petitioning Congress to correct the situation, either by including gas appliances in the excise tax schedule or removing electrical appliances from the tax list.

## Portable Units Now Provide Air Cooling For Home Funerals

CHICAGO—Air conditioned chapels for funerals are not unusual today, but the undertaking firm of Schroeder-Thompson-Reilly here has gone this one better—by providing air conditioning for home funerals.

Taking the description of room air conditioners as "portable" and "self-contained" literally, the firm offers its clients the use of two window units for installation in the home while the body is "lying in state"—usually three days.

Moving these units to a new location every few days was a "new one" for A. Cooper Jr., General Electric distributor here who made the sale, for the industry uses the term "portable" in the sense that no permanent plumbing or electrical connections are necessary for these conditioners.

James J. Thompson of the undertaking firm reports that he is pleased and satisfied with the operation of the units, and has found that each family in whose home a unit has been installed temporarily is grateful for the comfort provided.

## Cons. Edison Plans 'Repair Stations' For Appliances

NEW YORK CITY—Consolidated Edison System is now preparing to launch a program for the servicing and repairing of both gas and electrical products so as to reduce the demand for new appliances and thereby release materials for national defense, it was announced Saturday by E. F. Jeffe, vice president. The plan will replace the usual promotion of the sale of new appliances.

A meeting of manufacturers, distributors, and service men was scheduled for Aug. 20 at the company's office to discuss the program.

Under the project, certified service and repair stations will be set up under supervised operation, prices, and terms. Facilities will be available for all appliances used on the company's lines. The plan calls for provisions to finance the repair of any appliance, from an electric iron to a large refrigerator.

It was not indicated immediately whether these service and repair stations will be operated by Consolidated Edison or independently controlled under some sort of franchise plan.

As a means of offsetting the income they will lose because of the shortage of new units, dealers who have cooperated in the sales campaign sponsored by the company will be invited to participate in the program. The plan is expected to have an appeal for small manufacturers and distributors for the same reason.

## Gov't Backs Plan For Air Conditioning of Blast Furnaces

WASHINGTON, D. C.—Air conditioning of blast furnaces to increase the production of pig iron quickly and thus help relieve the present pig iron shortage is being planned by the government acting with the steel companies, it was brought out at a recent meeting of OPM, OPACS, Army and Navy officials, and steel and iron executives here.

By reducing and controlling the moisture content of air blown through the blast furnaces, air conditioning has increased pig iron production of some furnaces in the Birmingham, Ala. area an average of 7% or more per year, the meeting was told. Experience with scattered existing installations in the North has varied widely, it was said, and additional experimentation is desirable there.

It is expected that blast furnaces in the Birmingham section will be air conditioned generally because atmospheric conditions there make such a step clearly advisable, OPM reports.

Air conditioning equipment also may be installed at some blast furnaces at the Sparrows Point, Md. plant of the Bethlehem Steel Co., the

(Concluded on Page 4, Column 1)

## 18-Months Limit In First Draft of Time Sales Rules

WASHINGTON, D. C.—Maximum period of 18 months for time payment purchases of mechanical refrigerators, air conditioning equipment, and several other household appliances, and minimum down payment of 15 and 20% of the maximum credit value would be established under a tentative draft of the first of the Federal Reserve Board's proposed regulations to control instalment buying, made public late last week.

Under the regulations, one of many steps being taken by the government to prevent inflation, down payments of 20% would be required on electrical and gas refrigerators of less than 12-cu. ft. capacity, household washing machines, ironers, suction cleaners, heating and cooking stoves and ranges, electric dishwashers, room-unit air conditioners, and radio receiving sets.

Down payments of 15% would be

(Concluded on Page 14, Column 2)

## Here's a Real Prospect - An Entire Nation

Consulado General del Paraguay  
347 Madison Ave.  
New York

Editor:

I am writing to you as publishers of the AIR CONDITIONING & REFRIGERATION NEWS.

Paraguay is interested in having established a complete system of public refrigeration for the preservation of food in that country, and I would appreciate your letting me have the names of any companies which you believe would be interested in such an undertaking, in order that I may communicate with them at an early date.

EDMUND DILL SCOTT,  
Vice Consul

## Propaganda Drive To Halt Appliance Buying Apparent

WASHINGTON, D. C.—It is becoming increasingly apparent that certain government propaganda seems aimed at convincing consumers it will be "unpatriotic" for them to buy refrigerators and other durable goods if such purchases can possibly be avoided.

Recent addresses by government representatives leave little room for doubt that it is not only planned to make buying of durable goods uninviting through such measures as discriminatory taxation and instal-

(Concluded on Page 11, Column 4)

## Airtemp To Enter Commercial Field; Bard Named Mgr.

DETROIT—Entry of Chrysler Airtemp into the commercial refrigeration field is being announced by Paul B. Zimmerman, vice president and general sales manager, at a series of regional sales conferences now being conducted with dealers in 18 key cities throughout the country to present the company's fall sales program.

Directing Airtemp's activities in the commercial refrigeration field will be Malcolm T. Bard, who has been appointed manager of commercial refrigeration sales for the company. Mr. Bard comes to Airtemp from Norge, where he also was commercial refrigeration sales manager.

He had been with Norge since Dec. 1, 1937, and prior to that with General Electric, where since 1929 he had assisted in the organization of that company's commercial sales activity. His experience covers a wide range of manufacturing and merchandising activities, including

(Concluded on Page 4, Column 2)

## Cincinnati Ad Drive Keeps Refrigeration Before the Public

CINCINNATI—To keep the household refrigerator industry associated with the consumer's buying dollar, despite mounting governmental restrictions and regulations which seriously threaten to drastically cur-



## Evaporative Coolers For Army Posts

WASHINGTON, D. C.—Humidifying ("desert") coolers will be installed by the Engineering Corps at U. S. Army posts in warm areas of the southwest and Pacific Coast at a cost of \$500,000, according to an announcement by the War Department.

This type of cooler consists of a metal cabinet installed outside a window and filled with a porous material, such as excelsior, which is kept thoroughly watered. A fan on the room side of the cabinet draws humid air into the room, thus lowering the temperature from 10 to 20° F., according to field investigations of the Corps.

Installations were to be begun immediately in the theaters, chapels, barracks, hospitals, bachelor officers' quarters, and school buildings at the following posts: Las Vegas airfield, Nevada; Phoenix-Higley airfield, Luke field, and Tucson airfield, Ariz.; and Muroc bombing range, Victorville airfield, Bakersfield airfield, Fresno airfield, Taft airfield, Merced airfield, and Lemoore airfield, all in California.

tail production of new units, 10 Cincinnati distributors of 11 different brands of mechanical refrigerators are staging a cooperative and institutionalized advertising campaign in local daily papers.

Financing of the advertising program, which was developed jointly by the distributors as members of the Cincinnati Electrical Association, was handled by assessing each of the distributors a flat sum of somewhat more than \$100, while the

(Concluded on Page 14, Column 2)



## Demonstrations & Displays Stressing New Features Increase Sales 25%

LINCOLN, Neb.—Demonstrations, window displays, and improved departmental display facilities to dramatize improvements in the 1941 models have played a large part in the 25% increase in electric refrigerator sales at Rudge & Guenzel Co.,

according to L. B. Wilmott, appliance merchandising manager.

A recent Kelvinator "talking refrigerator" demonstration, retained for only a week in most stores, was held for nearly two weeks at Rudge's. Utilizing "talking" milk bottles, vegetables, etc., by means of recordings, the demonstration on the third floor was made effective by tying it in with a first floor display. Composition drinking glasses were given as attendance favors to the audience, which sat in front of the two "talking" refrigerators between which was a shadowbox screen in colors.

First floor display included two refrigerators under a canopy in front of the elevators and placards and streamers calling attention both to the third floor demonstration and features of Kelvinator models.

Increased sales also are attributed to remodeling of the refrigerator department. A semicircular background has been built with alcoves to display 12 machines, while seven "spotlight" display positions including floor platforms and illumination also have been provided. Besides these 19 display positions, other refrigerators are interspersed advantageously through the department.

Other attention-getters employed effectively by the store include factory aids such as banners and rotating colored signs and twisted tubing spelling the "frosting" word, "Kelvinator," used for both window and other displays.

**BUSH LEADS**  
*the way to*  
**COOL PROFITS**

For low ceiling market coolers where space is small and high capacity of refrigeration is required.



BUSH MFG. CO.  
HARTFORD, CONN.  
610 N. OAKLEY BLVD  
CHICAGO

**Bush**  
Mfg. Co.

COMMERCIAL COOLING UNITS

## Fall Range Promotion

*The Switch is ON*

**COOKING'S GOING ELECTRIC**



**CHANGE TO A MODERN ELECTRIC RANGE**



*The Switch is to Switches again!*

Theme of Modern Kitchen Bureau's fall drive is this window display which presents the analogy between electric lighting and electric cooking. From the flashing electric light at the top the spectator's attention is drawn by a flashing arrow to the electric range at the bottom.

## Competition Doesn't Bother This Dealer, For He Sells Just About Everything

MANCHESTER, N. H.—Ice refrigerators and ice, electric refrigerators, electrical appliances, oil burners and oil, stokers and coal, butane gas ranges and butane gas, electric air conditioning, and ice air conditioning are all sold by Manchester Coal & Ice Co., so the firm doesn't have to worry about old customers or prospects being attracted by competition.

A. J. Precourt and Edward A. Norton manage the firm.

Primarily an ice company, Manchester Coal & Ice has concentrated on ice refrigerators, averaging a carload a year, but—

"We are firm subscribers to the advertising theme of 'look at all three,'" said Mr. Norton, vice president. "Instead of placing this comparative selling idea on a hearsay basis, we believe in actually showing the comparison between all forms of home refrigeration in our own showroom. For that reason, we handle electrical appliances as well as the

ice refrigerator, and try to do a complete job of selling our customers any type of appliance they desire.

"We are selling services rather than the actual appliance," Mr. Norton further explained. "And our selling program is wrapped around the point of selling the housewife what she wants—no matter what this may be.

"Thus we do not lose competitive business on our ice refrigerators to electrical competitors. Neither do we find old customers straying to new buying grounds because we do not have the merchandise they want. We are willing to sell ice, coal, oil, butane gas, or any merchandise so long as we know that the customer honestly desires it."

Three showrooms are maintained by the firm, the center one for ice refrigerators, the one on the right for electrical appliances, and the one on the left displaying oil and bottled gas equipment.

## Do You Know These Fundamentals of Appliance Advertising & Merchandising?

Just published by Business News Publishing Co. (publisher of Air Conditioning & Refrigeration News) is a new book "Appliance Advertising & Merchandising." (Price: \$2.00.) Written by R. E. Mangan, who for the last 10 years has been advertising manager and merchandising expert for one of the largest appliance distributing firms on the west coast, the book is full of down-to-earth information on making advertising and promotion methods pay out.

Parts of "Appliance Advertising & Merchandising"—such as that below—will be published in the News from time to time, to give readers the benefit of some of Mr. Mangan's stimulating thinking, but primarily to create a desire on the part of the subscriber to get and read this very helpful book.

BY R. E. MANGAN

(From Chapter 12 "Facts About Advertising" of the book, "Appliance Advertising & Merchandising.")

**Newspaper Rates**—There are two types of newspaper rates: National and Local. The National rates are used by a newspaper for advertising placed by an advertising agency or any other out-of-town source. This rate is based on lines (there are 14 lines to the inch) and is usually considerably higher than the Local rate.

The Local rate is offered to all local retail merchants. It is based on column inches of advertising used. The more space you use the lower your rate.

Newspaper rates, like the price of anything, are based on the cost of production and distribution, plus a profit. Naturally, the cost of producing a paid circulation newspaper is higher than that of a free distribution paper. An editorial department, news wire, and features services must be paid for. The free distribution paper's rates are figured much as you'd figure the cost of a handbill—printing plus house to house distribution, plus profit.

It is necessary to pay a higher rate per thousand copies in a small circulation newspaper than in a large circulation paper. Quantity production affects newspaper rates just as it does the prices on other commodities. As a matter of fact, the cost of an advertisement in a metropolitan newspaper might be many more dollars than for the same size advertisement in a small town paper—but the cost per thousand readers reached by the metropolitan newspaper might be only 15% or 20% as much as in the small paper.

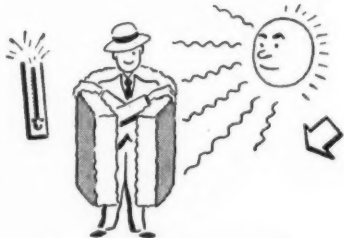
The rate of a free distribution paper should be about half that of a paid circulation newspaper with the same circulation. Or, said in another way, if your local newspaper covers 10,000 families, a free distribution paper should cover at least 20,000 homes for the same rate.

**Newspaper Advertising Contracts**—Be sure to sign a contract with your local newspaper. For this gives you a worthwhile rate saving. Sign for a little less advertising than you expect to use. If you use more than this amount, most newspapers will give you a retroactive discount that brings your rate down to that earned by your total space use during the year.

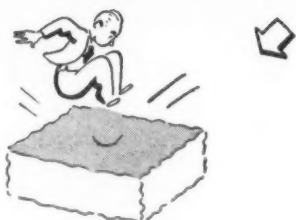
You need have no fear that a contract will bind you to a certain advertising schedule. For, if business circumstances require you to reduce your advertising, you are free to do so. The contract is merely an agreement to run a certain amount of advertising. And in view of this agreement, the newspaper gives you the discount earned immediately in the form of a lower rate. The only penalty involved, should you fail to fulfill your contract, is the payment of a higher rate—made retroactive by what is known as a "short rate."

While you sign a newspaper contract with the knowledge that it is not binding, you should not contract for more space than you expect to use. If you do, you'll find that you often advertise when you shouldn't in order to hold your rate. Or, you'll get a big "short rate" at the end of the year that will give your December profits a nasty bump.

## "Here's an Insulation that's GOT EVERYTHING"



HIGH EFFICIENCY



LONG LIFE



MOISTURE REPELLENCE

High efficiency . . . long life . . . moisture repellence . . . these are the features you must have in an insulation. And Dry-Zero Insulation has these very features—all of them!

Under test, Dry-Zero Insulation has been established as the most efficient commercial insulant known ("k" factor of 0.24). Properly installed it retains this heat-stopping efficiency far beyond the life of the refrigerator. It is by nature water repellent (non-hygroscopic) and is remarkably free from settling, rotting, and disintegration.

In addition, it does not absorb odors.

In the new Bound-Batt form, Dry-Zero Insulation is lower priced and easier to install. It is stiff enough to handle easily, yet flexible enough to fit irregular contours—an ideal combination for high speed production. Dry-Zero Bound-Batt can be supplied in rolls or in slabs cut to any rectangular size. Write, Dry-Zero Corporation, 222 North Bank Drive, Chicago; or 60 East 42nd Street, New York.

# DRY-ZERO INSULATION



## Suit Shows Part of Refrigeration In Soap Making

### Chilling Equipment Heart Of Ivory's Process

BALTIMORE — How important refrigeration is in the production of the new Ivory soap was revealed in the course of a patent suit brought against the manufacturer, Procter & Gamble Mfg. Co., by Lever Bros. Co., rival soap manufacturer, when Tyler Weymouth, manager of Procter & Gamble's Baltimore plant, gave a bare outline of the soap-making process in United States District Court here.

"Molten kettle soap is first reduced in moisture by heat and evaporation, while remaining molten, resulting in a molten soap of 22½% moisture," Mr. Weymouth said. "This soap without loss of moisture is caused to flow through proportioning equipment where perfume, other ingredients, and air are injected into the soap. . . . This equipment ends with a pump, in this instance a gear pump, which acts to commingle the soap, perfume ingredients and air, causing the material to flow through a conduit and to continuous refrigerating equipment. "We desire to keep confidential the details of operation at this stage. In the equipment, which is really a continuous ice cream freezer equipped with scrapers, the soap is rapidly chilled in about 20 seconds. The machine is a well known machine known as a Votator.

"In practice the refrigerating equipment has an outlet casing, through which the soap passes, equipped with stirrers which commingle, for a few seconds, the colder and warmer portions of soap. This casing has an outlet opening in the shape of a bar through which the soap extrudes.

"The extruded bar is form-retaining but lacking in mechanical strength and is discontinuous or granular. The pump . . . causes the soap to flow through the refrigerating equipment. There is no pressure on the soap except such as to maintain this flow.

"Without further working, the extruded bar passes through other chilling equipment, the final product ready for cutting and stamping being at slightly above room temperature. . . ."

This suit has not been settled and no definite date for hearing the case has been designated.

## Miller Heads St. Louis Sales For Foxboro

ST. LOUIS—E. B. Miller has been placed in charge of sales and service for Foxboro Co., instrument manufacturer in the St. Louis territory, headquarters of which are now located in the Continental building, 3615 Olive St. R. H. Hemfelt has been named assistant in the office.

Mr. Miller, who for several years has been a member of the Foxboro staff in Chicago, replaces E. R. Huckman, former St. Louis manager, who has been transferred to the New York territory.

## Higley Elected Legion's Wisconsin Commander

ANTIGO, Wis.—Harvey C. Higley, president of Ansul Chemical Co., Marinette, was elected Wisconsin department commander of the American Legion at the annual convention here recently.

## Absorber Thermometer Combined In Package

CINCINNATI — Packaged in a white can simulating a refrigerator, a combined odor absorber and refrigerator thermometer has been introduced by American Products Co. for use in refrigerators and ice boxes.

The deodorizer unit is claimed to keep foods, ice cubes, frozen desserts, etc. from becoming tainted by the odors and flavors of other foods kept in the same place. It retails for 10 cents.

## Joins Controls Maker Alfred M. Wilson Is M-H Executive



ALFRED M. WILSON

MINNEAPOLIS—Alfred M. Wilson has been added to the executive staff of Minneapolis-Honeywell Regulator Co. as assistant to H. W. Sweatt, president.

Mr. Wilson has had a broad background of manufacturing and executive experience. Following his graduation from Yale university, he worked in the factory of the Gillette Razor Co. of Boston and during his employment there completed a course in engineering at Massachusetts Institute of Technology.

After leaving Gillette, he was associated with American International Co. in New York and for the past several years has been with J. & W. Seligman & Co.

## Hubbell Calls Meeting Of Brass & Copper Men In Chicago, Aug. 21

ST. LOUIS—Believing that a general discussion by members of the industry will help to work out problems caused by the defense program, Howard H. Hubbell, general manager of the Brass & Copper Sales Co. here, has sent invitations to approximately 175 copper and brass general products distributors to attend a meeting at the Palmer House in Chicago on Aug. 21.

## Carrier 'Profit Showing' Bonus over 11%

SYRACUSE, N. Y.—With the July "profit-sharing bonus" hitting a new high of 11.4%, Carrier Corp. employees have received wage increases far above the government-estimated 4% increase in living costs since August, 1939, reports J. I. Lyle, president of the company.

Bonus payments, based on the company's average monthly net income for the preceding 12 months, have been rising steadily since the plan went into effect in December, 1939. In June employees received a bonus of 11%, the previous high mark.

## Carolina Parts Jobber Sets Out Scrap Box For Defense Metals

Henry V. Dick & Co.  
703 Main St.  
Columbia, S. C.

Editor:

Here in our Columbia, S. C. branch, we have started a practice which we believe well worth passing along.

Several days ago, we secured a large wooden box, placed it in the front of our store with the sign "Donate your scrap metal for defense" upon it.

This box has already been filled once, to the extent of 200 lbs., and well on its way again.

For example: A service man comes into our store with an old expansion valve to be duplicated. After the valve has been purchased, the old valve goes into the "scrap box." We then turn over the contents of the box, after it has been filled, to the authorities in charge of the national aluminum campaign. (Multiply our 200 lbs. in three days by every jobber in the country and you will have a nice little pile of scrap metal, which would otherwise have found its way into the trash pile.)

Hoping that this suggestion will be put into use by others, we are.

E. S. DIGGLE,  
Branch Manager

## Langsenkamp Moves South Bend Branch

SOUTH BEND, Ind.—Headquarters of the local branch office of F. H. Langsenkamp Co., refrigeration supplies jobber, have been moved to a new location at 143 East LaSalle St. Former location was at 127 South St. Joe St.

New quarters have more than twice the floor space of the company's former location, and will permit centralized storage of all supplies handled. Formerly it had been necessary to store equipment in various locations around South Bend. Langsenkamp's new store is only two blocks from the center of the city, and is on a corner.

Former occupant of the space was a fur storage business which had a storage vault in the basement. Because of the scarcity of such items as copper tubing and "Freon-12," the company is considering dropping its supply of these materials through the trap door in the floor, and keeping them under lock and key, reports F. H. Langsenkamp, Jr., treasurer.

## New Catalog Offered By Republic Electric

DAVENPORT, Iowa—A new catalog of supplies and equipment for refrigeration and air conditioning has been issued by Republic Electric Co., parts and supplies jobbing firm here.



# AT EASE!

## ...increase sales and profits

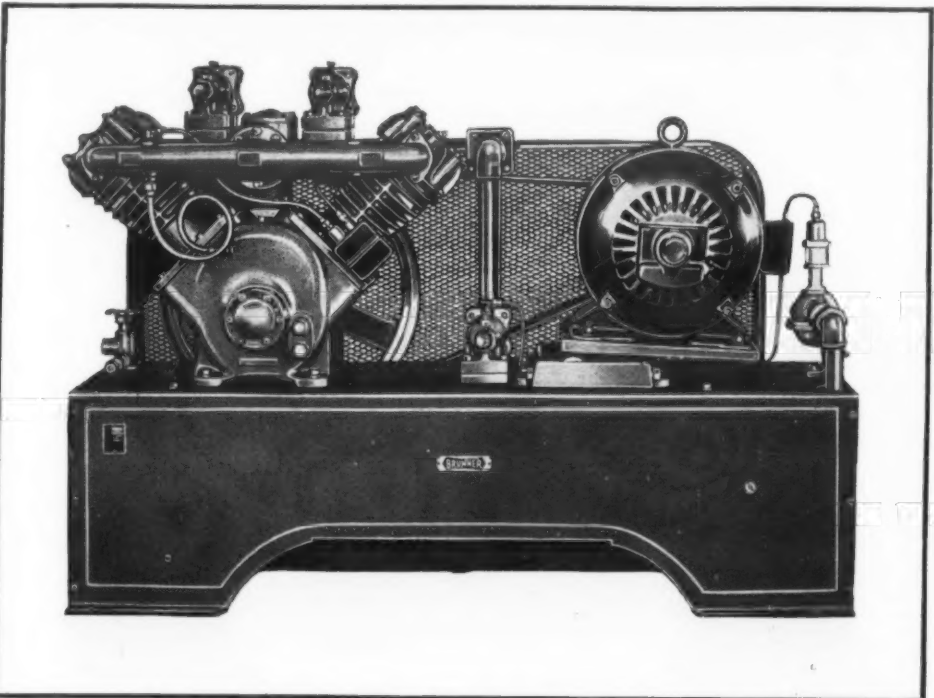
### WITH AIR CONDITIONING

It's "happy days" for everybody—patrons, proprietor and supplier—when the air conditioning job is entrusted to a Brunner unit. That's because Brunner is so dependable. It eliminates all worries of breakdowns... keeps the cash register tingling and the proprietor smiling... builds good will all around!

In addition, there's Brunner's money-saving operation, enabling the refrigeration unit to pay for itself in shorter time. Secret behind this is in construction—in the lessons learned from years of research and practical experience. And Brunner units are built to give this economical, trouble-free kind of service for years on end.

There's a Brunner unit especially suited for every kind of air conditioning or refrigeration job. Available in a wide range of capacities from ¼ to 25 tons. Write for catalog. Brunner Manufacturing Co., Utica, N.Y., U.S.A.

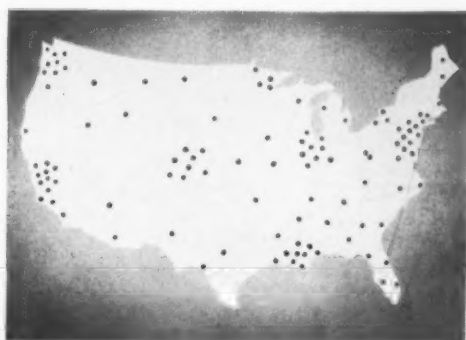
1 TODAY'S CUSTOMERS have been taught to expect air conditioning in restaurants, theatres, stores and shops. Failure to provide it may cost, in trade profits, many times the price of a Brunner unit.



2 COMPACT AND DURABLE. Brunner units are precision built to stand the gaff of severe service. Heavy duty motors, dependable controls, bronze bearings, extra heavy structural members, silent eccentric drive. Above: Brunner Model W-25,000—4 cylinders, 25 h. p. water-cooled condensing unit.



3 WITH EVERY Brunner goes the Underwriters' Laboratories approval and the U. L. Seal. Proof of Brunner reliability.



4 EXPERT FIELD engineers, stationed in all parts of the U. S., are available for consultation on any refrigeration problem. Their practical experience will prove invaluable.



**BRUNNER**  
FOR YEARS THE  
SYMBOL OF QUALITY

SEND for the  
"inside story".  
Brunner superiority  
illustrated point by point.



## Plan To Condition Blast Furnaces OK'd by Gov't

(Concluded from Page 1, Column 2)  
Inland Steel Co.'s plant at Chicago, the Jones & Laughlin Steel Co.'s plant in the Pittsburgh area, and possibly at other mills in the Pittsburgh region, according to officials of OPM.

These northern installations would be experimental, OPM states, to throw further light on the advisability of air conditioning in the areas mentioned. However, Jones & Laughlin has reported favorable experience with initial installations already made.

**Anaconda Copper Refrigeration Tubes**

Unusually long lengths!



THE AMERICAN BRASS CO.  
FRENCH SMALL TUBE BRANCH  
General Offices: Waterbury, Conn.

## Commercial Head



MALCOLM T. BARD

## Bard To Head Airtemp's New Commercial Dept.

(Concluded from Page 1, Column 4)  
the development of distribution, product promotion, field education work, and dealer contact.

For the present, Airtemp's activities in commercial refrigeration will be limited to applications in which 3 and 5-hp. packaged refrigerating units can be used, but it is planned to enlarge the line to cover a complete range of sizes.

The new Airtemp commercial units follow closely in design those used in the company store coolers of similar capacity, with all equipment and controls housed in a cabinet, making for convenience in servicing. Radial compressor is hermetically sealed.

In announcing the company's new commercial program to dealers at the regional conferences, Mr. Zimmerman pointed to the market in this field as roughly equal to the combined markets for both heating and air conditioning equipment. Replacement market, particularly among hotels, restaurants, institutions, and other users of moderate-size equipment is particularly important at present, he declared, since a great many of the plants now in use in such fields are between 15 and 20 years old.

Value of commercial refrigeration to the air conditioning dealers as an entry for the later sale of cooling equipment also was emphasized, as well as the fact that servicing of commercial equipment provided an ideal wedge for sales of replacement equipment. Dealers also were told that they were well equipped to capitalize upon commercial refrigeration opportunities, since equipment, training, parts, etc. are similar to that in the air conditioning field.

At last week's conference in Detroit, Mr. Zimmerman opened the session with a discussion of "Our Partnership," in which he emphasized the company's basic aim to build a sound dealer structure. Features of Airtemp's line of heating, cooling, and combination summer-winter air conditioning equipment were presented by A. P. Livar, chief heating engineer, and K. L. Crapeau, service representative in the Detroit region.

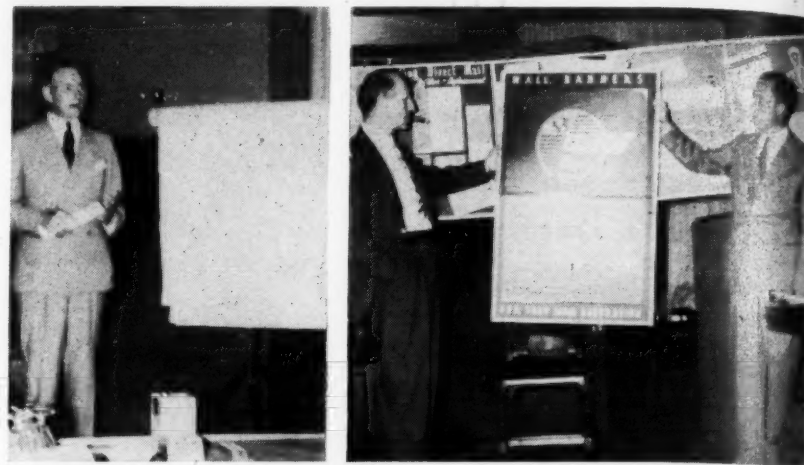
Marketing plans in connection with the company's year-around air conditioning equipment were presented by Henry Knowlton, sales promotion manager, who also outlined the fall sales campaign in general. Complete line of sales aids was presented by means of a humorous skit.

Meetings were held last week in Detroit, Chicago, and St. Louis, following the opening conference in Dayton. Future conferences are scheduled for: Dallas, Aug. 18; New Orleans, Aug. 19; Birmingham, Ala., Aug. 20; Atlanta, Aug. 21; Washington, D. C., Aug. 25; New York City, Aug. 26; Boston, Aug. 27; Syracuse, Aug. 28; Kansas City, Sept. 3; Omaha, Sept. 4; Minneapolis, Sept. 5; Buffalo, Sept. 8; Pittsburgh, Sept. 9; and Cleveland, Sept. 10.

## Dealer Gets 200-Unit Order

ST. LOUIS—Howard Appliance Co. here, headed by Jack Howard, has received a contract for installation of 200 G-E water coolers at the new United States Cartridge Co. munitions plant at Goodfellow and Natural Bridge Aves.

## Opening Airtemp's Fall Drive



Left—P. B. Zimmerman, new vice president and general sales manager of Airtemp, makes use of a chart to emphasize a point in his talk. Right—Allen P. Livar, chief heating engineer, and V. P. Black, advertising manager, show off some of the company's new promotional material.



In a skit designed to dramatize the desirability of adequate floor samples in every dealer's showroom, Allen P. Livar, chief heating engineer, resorts to makeshift equipment as he bravely tries to demonstrate the workings of an Airtemp unit to a dubious "lady prospect" who in real life is none other than Henry Knowlton, newly appointed sales promotion manager of Airtemp. K. L. Crapeau, service representative in the Detroit area, keeps the "prospect" well in hand.



Mixing business with pleasure during the cocktail hour are Dee Cramer, Airtemp dealer in Flint, Mich.; J. E. (Jesse) Hoyt, Airtemp's regional sales supervisor; L. W. Guenther, Michigan regional manager; Al Nydam, in charge of heating activities for Richards Mfg. Co., Grand Rapids, Mich. distributor; and Dan Chappell, Grand Rapids district manager.

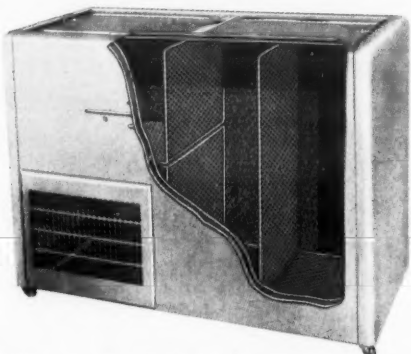
## Whitney at Kelvinator

DETROIT—George Whitney, former advertising manager of Norge division of Borg-Warner Corp., has been appointed copy chief of Kelvinator division of Nash-Kelvinator Corp.

## New Appliance Department

MARSHFIELD, Wis.—A new appliance department under the direction of C. W. Mitten has been opened in the new Karau's Super Market building here at 337 S. Central Ave.

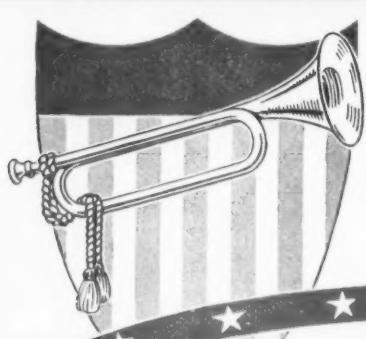
## THE LA CROSSE COMMANDER



A COMMANDER in the field of dry type bottle beverage coolers. Four Foot—12½ case capacity. Six Foot—23½ case capacity. Self-contained, large capacity blower coil, adjustable wire partitions, special bottle rack assures ample circulation. Slide lids stainless steel trimmed. Tops in capacity and performance.

WRITE FOR FULL PARTICULARS

LA CROSSE NOVELTY BOX MFG. COMPANY  
LA CROSSE, WISCONSIN

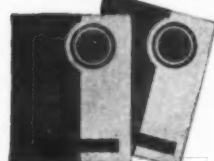
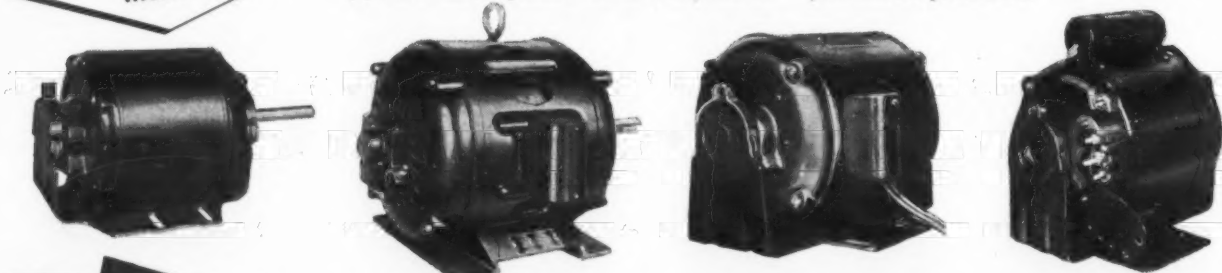


Thousands of **WAGNER Motors**  
ARE NOW GIVING DEPENDABLE SERVICE ON REFRIGERATING  
AND AIR CONDITIONING EQUIPMENT IN DEFENSE INDUSTRIES,  
ARMY CANTONMENTS, NAVAL STATIONS, ON SHIPS, ETC.

FOR QUICK DELIVERIES  
ON MOTORS FOR  
DEFENSE PRODUCTION  
SPECIFY  
WAGNER

Our Country has sounded the call for equipment and machinery for national defense. Equipment manufacturers everywhere are answering that call—and refrigerating equipment manufacturers are no exception. Already thousands of refrigerating units are doing their part in the defense program—a large percentage of these units are powered by Wagner motors, and for good reasons, too. (1) Established reputation for efficiency and de-

pendability, (2) complete line—the right motor for every type of equipment and all service conditions, (3) quick shipments to handle rush defense orders, (4) large plant capacity to handle any order, large or small, (5) 50 years manufacturing experience, (6) convenient service facilities through 25 branches... six good reasons why you should look to Wagner for motors for all your defense production.



Send for Bulletins  
MU-177 & MU-182.

Type M, Shaded-Pole Fan Motors (1/2 to 1/2 hp)—ideally suited for fan and blower drives where the fans or blowers are mounted directly on the motor shaft.

Type RP, Squirrel-Cage (1/6 to 400-hp)—because of simple construction are low-priced, easily installed, and exceptionally sturdy and dependable.

Type RA, Repulsion-Start-Induction (1/2 to 15-hp)—the ideal motor for heavy duty applications such as compressors, pumps, mixers, etc.

Type RK, Capacitor-Start Induction-Run (1/2 to 3.4-hp).

**Wagner Electric Corporation**

6400 Plymouth Avenue, Saint Louis, Mo., U.S.A.

25 SALES AND SERVICE  
BRANCHES Conveniently  
Located Throughout the Country.

Trained Sales-Engineers are always  
ready to assist you in selecting motors  
to meet your particular requirements.

MOTORS • TRANSFORMERS • FANS • BRAKES

Sized for service  
men's convenience

• Ansul cylinders of Sulphur Dioxide and Methyl Chloride come in several sizes, but there are three that are especially useful to the service man. These are big enough to contain sufficient quantities of gas, yet small enough to be carried easily in a service truck.

THE ANSUL JOBBER NEAR YOU CAN  
SUPPLY THESE HANDY-SIZED  
CYLINDERS AT YOUR CONVENIENCE

SO<sub>2</sub> . . . 25 lbs. . . . 70 lbs. . . . 100 lbs.  
CH<sub>3</sub>Cl . . . 15 lbs. . . . 40 lbs. . . . 60 lbs.

ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

LET THE ANSUL JOBBER NEAR YOU  
SERVE YOU BETTER

**ANSUL**  
SULPHUR DIOXIDE  
METHYL CHLORIDE

Agents for Kinetic's "Freon-12"



nger  
alk.  
sing  
rial.

les  
eer,  
the  
life  
ion  
the

er,  
nal  
m,  
ch.

ent  
ap-  
direc-  
been  
super  
S.

e

SIN  
OU  
AC-17



GENERAL  ELECTRIC  
**SCOTCH GIANT**  
*Condensing Units*  
Thrifty... Powerful...  
Rugged... Dependable



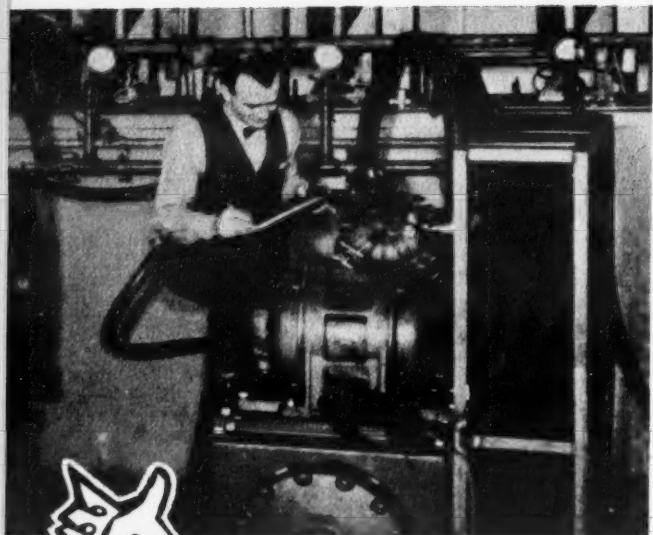
GENERAL  ELECTRIC

# SCOTCH CONDENSING



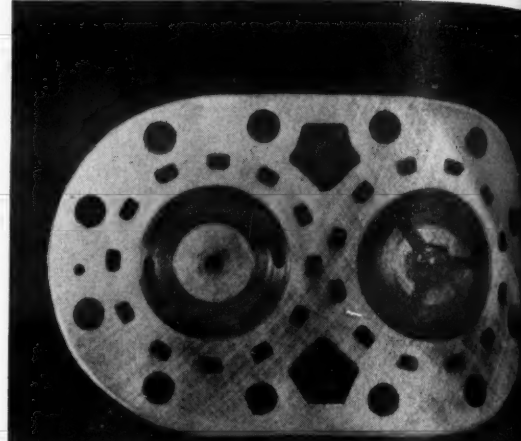
# GIANT UNITS

*Point by point, each condensing unit is rugged...powerful...thrifty...dependable*



**601 inspections** and tests are made at various stops along the assembly line on each G-E *Scotch Giant* condensing unit. This, combined with G-E research, craftsmanship and precision, assures high efficiency.

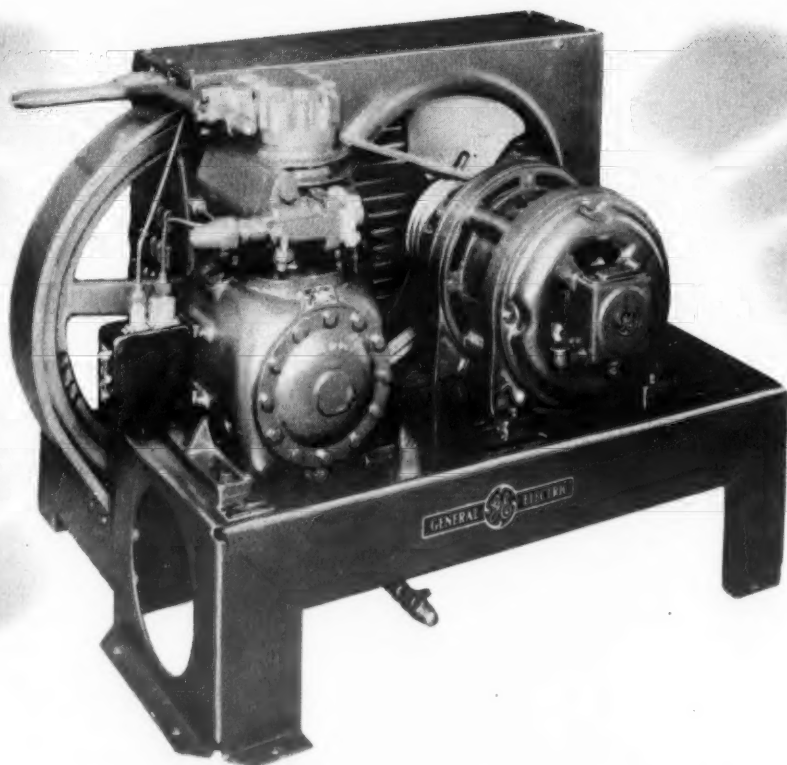
**I**N A STORAGE CABINET, a display case, a walk-in box, a water cooler... any type of commercial refrigeration... it's the *condensing unit* that determines efficiency and operation cost. That's why it is so important your refrigeration be powered by a G-E *Scotch Giant* condensing unit. No matter what you need in the way of commercial refrigeration, consult your local G-E Distributor (See Classified Telephone Directory) or write direct.



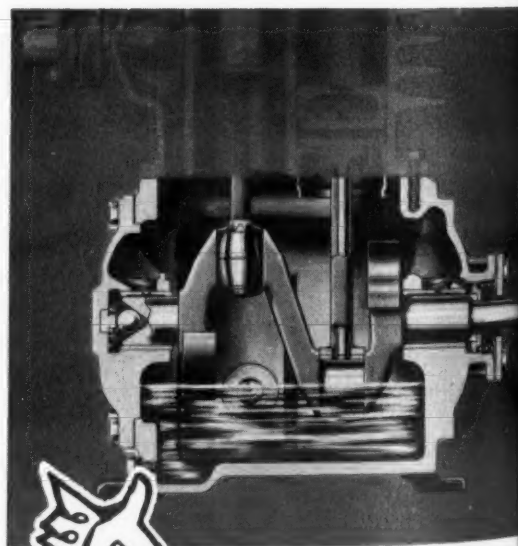
**Light-weight Swedish** spring steel valves are used for ample strength and quiet operation. Large passages reduce resistance and contribute to high cooling capacity, low operation cost.



**Like all other parts** in the *Scotch Giant* condensing units, motors are made by G-E. Each unit-part is designed to work in harmony with each other. That's why hundreds of thousands of installations have proved satisfactory.



**AIR COOLED...WATER COOLED  
MODELS...SIZES RANGE FROM 1/4 TO 60 H.P.**



**Even the oil** is specially developed for G-E units to assure positive lubrication. It's also impossible to have "oil pump trouble" for G-E. Ingenuity has eliminated that mechanism entirely from its condensing unit.



**Heavy drop forged** crankshaft is balanced to prevent vibration. Tapered fit with flywheel and large key prevents shearing. Connecting rod bearings of anti-friction bronze reduce power consumption.

GENERAL  ELECTRIC

GENERAL ELECTRIC CO., Div. 470, Bloomfield, N. J.

Yes, I am interested in efficient, low-cost refrigeration equipment. Without obligation, please send me booklet on General Electric *Scotch Giant* condensing units.

NAME \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

☐ I am a manufacturer interested in quantity purchase of G-E *Scotch Giant* condensing units



## DEFENSE

### Appliances, Radios Get Favorable Rating Under OPACS Plastics Control Order

WASHINGTON, D. C.—Household appliances and cases for radio receivers are among the products assigned a secondary preference rating under an allocation program, announced recently by the Office of Price Administration and Civilian Supply, which sharply restricts civilian use of plastics and synthetic resins made directly or indirectly from formaldehyde. The program is effective Aug. 23.

This rating is considered favorable to the industry inasmuch as household appliances and radio receiver cases, along with passenger automobiles, furniture, commercial cameras, and textile finishings, are given preference over such articles as advertising premiums and display items, "juke boxes," novelties, toys, amateur cameras, and decorative items.

Importance of this preference is indicated by a survey conducted by the plastics department of the E. I. duPont de Nemours & Co. of the larger refrigerator manufacturers. This survey indicated that 1942 electric refrigerators will have more than fifty plastic parts. Results of this survey were described in the Aug. 6 issue of the NEWS.

It was also disclosed that a study of the price situation in the formaldehyde branch of the chemical industry is under way by OPACS in view of numerous reports that some distributors are exacting excessive prices.

The allocation program was made necessary, according to Administrator Leon Henderson, because a shortage of plastics, synthetic resins, and the components of such resins has developed within recent weeks due to great demands made by defense industries and the constantly increasing requirements of civilian industries for plastics to use in substitution for other materials no longer available. A large percentage of plastics and synthetic resins contains formaldehyde, also used extensively in other fields.

"Present prospects are that supplies of formaldehyde will be sufficient for requirements of the defense program and essential civilian needs," the OPACS announcement said, "but its use in the production of plastics going into . . . non-essential items . . . must be curtailed. With this objective, the allocation program segregates into three classifications the non-defense uses of molding compounds, plastics, adhesives, and miscellaneous binders, made from synthetic resins."

Those industries and activities, essential to the public welfare, which are given an "A" classification and thereby precede household appliances (Classification "B") in preference rating are: public and industrial light, heat, power, and water equipment; transportation equipment, including accessories to commercial airplanes; trucks, buses, tractors, fire fighting implements, and farm equipment; technical instruments; material and equipment for scientific research; chemical protective uses; applications in the communications industry; oil well equipment; industrial equipment; hose, other than protective coatings; mining; industrial, food, and medicinal containers

and protective coverings for them; closures, except decorative; marine applications; and grinding wheels and other abrasive products.

The order states that the quantities allocated for the production of articles in Classification "B" may be limited in amount.

Although no preference is provided for products in Classification "C," which includes items considered non-essential to civilian welfare during the present emergency, the program provides for a shift into Classification "B" from Classification "C" certain products using only a small percentage of formaldehyde and in which formaldehyde resins are essential. The order further stipulates that preferences accorded in Classifications "A" and "B" will be granted "only to those uses of resins which are essential to the functioning of the classified part or material and the preference shall not be granted to such uses if satisfactory substitutes are available."

### Refrigeration Classed As Farm 'Essential'

WASHINGTON, D. C.—Although national defense measures have, up to now, indicated a stringent curtailment of electrical household appliances, this may be offset by a boom in the demand for farm appliances, including food processing and storage equipment.

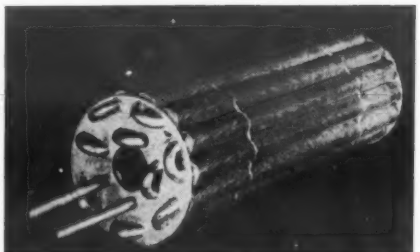
Many appliances necessary to the processing of meat, dairy, and egg products may be classed with essential farm equipment as a result of assurance given Secretary of Agriculture Claude R. Wickard by OPM Director General Knudsen recently that agricultural needs would be taken care of next to armament, and would be regarded as semi-military in character.

This promise of adequate equipment to agriculture was given at a conference of OPM chiefs and representatives of the Office of Agricultural Defense Relations, which is directed by M. Clifford Townsend.

Agricultural chiefs informed OPM that, while there is a surplus of such crops as wheat and cotton, there is a very heavy demand at this time for foodstuffs like meat, egg, and dairy products, and that special machinery is required for the processing of these.

A complete survey of agricultural needs will be completed within 30 days and submitted to OPM upon the request of Director General Knudsen. This inventory is being taken under the direction of the Office of Agricultural Relations. Among appliances mentioned as possible essential equipment on farms are feed grinders, milk coolers, locker plants, motors.

### No Joints! No Leaks



This Rome Jointless Water Cooled Condenser is a typical example of Rome's ability to provide trouble free condensing equipment. Rome Water Cooled Condensers are used by many leading compressor manufacturers. Write for complete information.

**ROME-TURNEY RADIATOR COMPANY**

222 Canal Street  
ROME, N. Y.

### Steel Now Subject To 100% Rationing

WASHINGTON, D. C.—Made necessary by a growing shortage in certain types of steel products, steel in all forms, including alloy steel, has been placed under full priority control by the Office of Production Management.

With this action, one of a series of moves the Priorities Division has made since the first of the year to make sure that iron and steel products flow promptly to defense channels, all iron and steel products are under priority control so that defense needs can be put uncompromisingly ahead of non-defense needs.

Under this order, signed by E. R. Stettinius, Jr., Director of Priorities, all defense orders must be filled ahead of non-defense orders. These defense orders must be accepted by steel companies, subject to certain exceptions, even if non-defense orders or orders bearing lower ratings already on the books have to be deferred.

A separate order is to be issued shortly, giving details of the regulations applying to alloys.

Previously, iron and steel products had been placed on the Priorities Critical List (giving Army-Navy orders priority), and have been subject to inventory controls and to General Steel Preference Delivery Order No. 1, designed to expedite delivery of defense steel. Pig iron was put under full control on Aug. 6.

Since they are now fully covered by specific priority regulations, iron and steel have been removed from

the terms of General Metals Order No. 1, providing inventory control. General Steel Preference Delivery Order No. 1 is also revoked.

Defense orders are defined as "contracts or orders for the Army or Navy, for certain other government agencies, for Great Britain or any other lend-lease country, or any order to which a preference rating of A-10 or higher is assigned." Defense orders not bearing a higher rating are assigned a rating of A-10.

Steel demands have supported higher than 90% capacity production for nearly a year, according to "The American Metal Market," which said that most mills are sold into 1942 with fresh buying in big volume. This publication predicted that makers of consumers' goods will receive less steel as defense needs expand and that they also may be seriously affected by an anticipated curtailment in steel production because of a shortage of scrap and pig iron.

### 'Clearance Section' Speeds Latin American Exports

WASHINGTON, D. C.—In a move to expedite trade with Latin America, Brig. Gen. Russell L. Maxwell, Administrator of Export Control, has established a Clearance Section in his office through which a United States exporter or manufacturer or foreign importer may submit export proposals on articles and materials deemed essential to the economic life of friendly countries.

The present time-consuming rules that other interested agencies be consulted about export transactions will be eliminated under the new system.

### REA Allotted Materials For Wiring Program

WASHINGTON, D. C.—Allocation of copper, steel, zinc, and aluminum to the Rural Electrification Administration so that agency can continue its construction program, currently about five months behind schedule, has been granted by the Office of Price Administration and Civilian Supply. The program, which will expire Jan. 31, 1942, unless sooner terminated by OPACS, will be administered by the Office of Production Management.

REA must use the allotted material to complete work now in progress, undertaking new projects only if the allocated materials are sufficient to complete them.

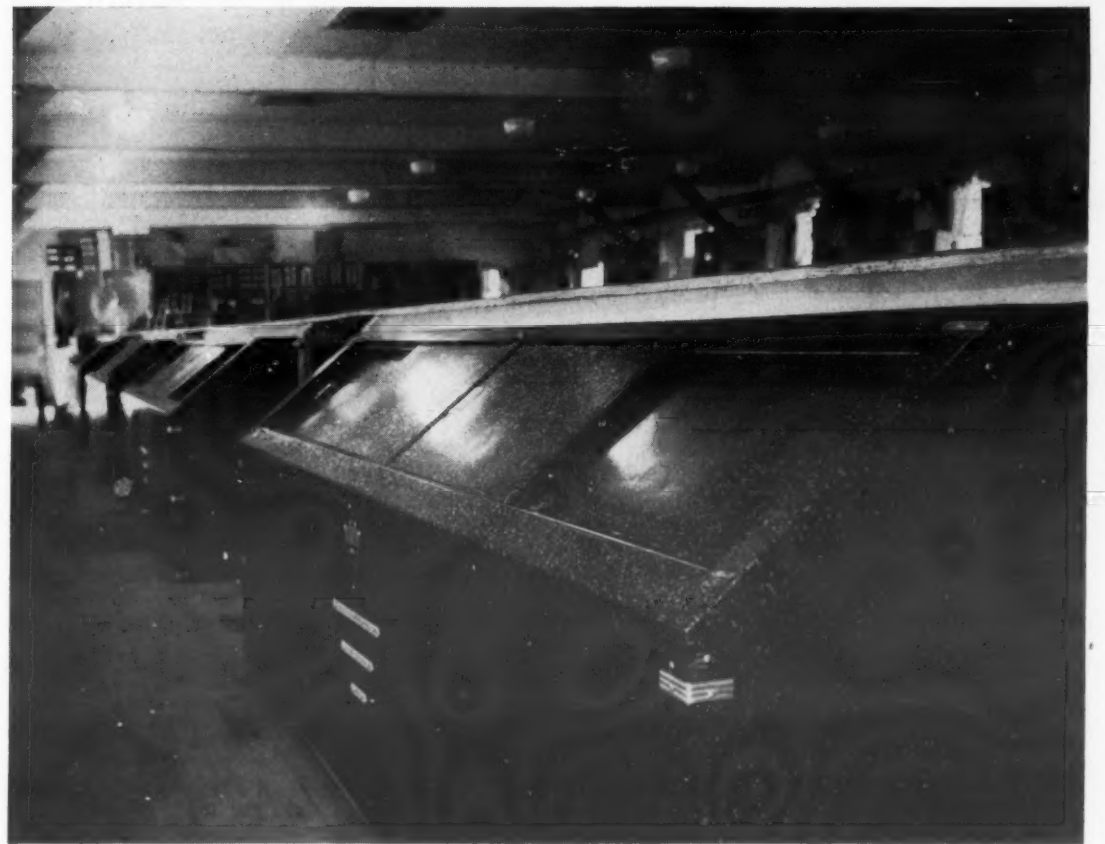
REA has proposed to wire 400,000 farms in the next 18 months at the monthly rate of about 22,000. The allocation program will permit making up the five-month lag but at the reduced rate of 11,000 farms a month.

### G-E Erecting \$20 Million Defense Plant at Ft. Wayne

FORT WAYNE, Ind.—General Electric Co. will construct a \$20,000,000 factory here for the manufacture of turbo-superchargers for airplanes.

The building will be one story high, 800 feet long, 500 feet wide, and have 400,000 feet of floor space. Construction is expected to start within two months. The building will cost \$5,000,000 and machinery and equipment \$15,000,000.

## ★ IDEAL wins ★ 22,000 MAN ★ THIRST BLITZKRIEG!



Every day, in broiling temperatures and extreme humidity, 22,000 selectees storm 39 Ideal Beverage Coolers located in the 12 exchanges here with a thirst that consumes every drinkable thing in its path. Yet, in spite of this unbelievable demand, Ideal turns them back completely refreshed and ready for another go-round.

*Man, here's a Blitzkrieg with a capital BLITZ.*

Picture, if you can, 2,600 men in one exchange alone, all scrambling at once for something cold to drink at an exchange bar that is defended by four 8 foot dry blower type Ideal Beverage Coolers and a dozen attendants, and you have some idea of the kind of service these Ideal Coolers are giving. It means that twice every twenty-four hours every Ideal Cooler of the 39 delivers a capacity load of COLD beverages, an unheard of feat for ordinary coolers.

That's the kind of performance required by Camp Robinson, and other army camps where Ideal serves, and that's the kind of performance that Ideal gives. It's a continuous, thirst Blitzkrieg proving ground that rates Ideal Beverage Coolers second to none.

**The IDEAL BEER COOLER CO.**

2953 EASTON AVE.  
ST. LOUIS, MO.

**Anaconda Copper Refrigeration Tubes**

Unusually soft!



THE AMERICAN BRASS CO.  
FRENCH SMALL TUBE BRANCH  
General Offices: Waterbury, Conn.



# Air Conditioning & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;  
Established 1926 and registered as  
Electric Refrigeration News

F. M. COCKRELL, Founder

Published Every Wednesday by  
BUSINESS NEWS PUBLISHING CO.  
5229 Cass Ave., Detroit, Mich.  
Telephone Columbia 4242

Subscription Rates  
U. S. and Possessions, Canada, and all countries  
in the Pan-American Postal Union: \$4.00 per year;  
2 years for \$7.00. All other foreign countries: \$6.00  
per year. Single copy price, 20 cents. Ten or  
more copies, 15 cents each; 50 or more copies,  
10 cents each. Send remittance with order.

GEORGE F. TAUBENECK,  
Editor and Publisher

PHIL B. REDEKER, Managing Editor

THEODORE T. QUINN, Assistant Editor

ROBERT P. NIXON, Statistical Editor

Editorial Staff: Jim McCallum,

C. D. MERICLE, and JACK SWEET

JOHN R. ADAMS, Business Manager

JAMES E. SMITH, Advertising Manager

ED HENDERSON, Circulation Manager

M. HELEN COCKRELL, Credit Manager

On leave of absence for military service:  
RICHARD J. NEUMANN and GEORGE L. COLLINS

Member, Associated Business Papers  
Member, Audit Bureau of Circulations

VOLUME 33, No. 16, SERIAL No. 648  
AUGUST 20, 1941

Copyright, 1941, Business News Publishing Co.

## Refrigeration Is Essential To America's Health

## Make Blackouts Permanent

WHAT are windows for? Suppose we didn't have any windows—anywhere.

We obviously couldn't look outside from inside. We couldn't watch the cars go by. We couldn't admire the scenery. We couldn't see whether it is a fine afternoon for golfing.

The sunshine couldn't come inside from outside. The sunlight couldn't light up the inside for work or pleasure. The sun-warmth couldn't shine through on a bright morning.

### AIR CONDITIONING AND FLUORESCENT LIGHTING

But suppose that all our buildings were air conditioned and we used fluorescent lighting for all interior illumination—and we didn't have any windows, anywhere. Then we would have blackout buildings; all of our buildings would be blackout buildings. They might also be very practical, usable, economical buildings.

There would be no distraction from our indoor work or other interests. Photo-murals or other decoration might be ample substitute for scenery, and a great improvement in many sections where scenery is confined to railroad tracks and the hind ends of dirty buildings. True, we would have to look at a barometer to know about the weather outside.

While we would miss the sunlight we would likewise miss the glare and shadows. We would miss the drafts that bring millions of colds every winter. There would be a great saving in the cost of heating in winter and cooling in summer.

Space indoors would be of equal value in the same building. Air conditioning would provide uniform comfort, adequate circulation, and optimum temperatures. Fluorescent lighting would provide proper light,

with a planned arrangement to eliminate harmful or annoying shadows. Rent differentials, and the corresponding loss due to relatively useless inside space, would disappear. Extra walls designed especially to obtain window space would be eliminated.

Think for a moment of the typical department store where there is seldom a day in a year that artificial lighting is not resorted to because much of the space is interior and far from windows. The architect seems to have included windows in his design for the purpose of decoration. Think how this space could be utilized with handsome display cabinets or in a rug department by actually suspending the rugs against a wall. The outside of the building could be made beautiful with ceramic murals depicting in a refined way some phase of the business activity of the company.

### HEATING COSTS LOWER DUE TO USE OF LESS GLASS

Many blackout plants are now being constructed throughout the country. Though these have been designed for use during a possible war period, it will likely be found after the emergency is over that they are the most efficient type of industrial building to erect. Certainly it will cost a great deal less to heat them than the great glass edifices that have been erected during the past two decades. Furthermore, in industrial processes it is desirable to have light of a constant intensity which does not cast shadows.

Windowless construction is probably not adaptable to residences other than on a limited scale. Even in this case, however, there seems to be no reason for windows in many city dwellings, and future decades may find such windows significantly lacking.

### PROMOTIONAL EFFORT OF INDUSTRY REQUIRED

What seems to be needed is promotional education of architects, engineers, and the public, to sell the idea of windowless construction, particularly as it applies to manufacturing plants and commercial buildings. It is a promotional effort which manufacturers of air conditioning equipment and manufacturers of fluorescent lighting might well underwrite jointly, to the great benefit of both.

The proposal for such promotional education is not original with the NEWS. In the June issue of "Architectural Forum," Kinetic Chemicals, Inc. inserted an advertisement, we believe the first of its kind, featuring windowless construction, with air conditioning and fluorescent lighting. Kinetic Chemicals, of course, sells refrigerants. It manufactures neither air conditioning machinery nor fluorescent lamps.

Referring to such advertising, designed to change long-standing habits of thinking, W. W. Rhodes, astute Sales Director of Kinetic, comments:

"One of the troubles in our industry is that each manufacturer has gone ahead for himself in advertising his products but there has been no joint advertising campaign to sell the public on the products of the group. There should be a concerted movement by the trade associations along this line which I am sure, would benefit the whole group."

AIR CONDITIONING & REFRIGERATION NEWS seconds the motion. Mr. Rhodes has a great idea.

## They'll Do It Every Time

By Jimmie Hatlo



## Congratulations, Mr. Nickerson!

LAST month J. F. Nickerson celebrated his fiftieth anniversary as editor and publisher of "Ice and Refrigeration." That's a record of continuous service probably unparalleled in the business publishing field. From young AIR CONDITIONING & REFRIGERATION NEWS, heartiest congratulations!

Now a hale octogenarian, Mr. Nickerson looks the part of the Grand Old Man of the Industry. With his white Van Dyck beard, his twinkling eyes, and his courtly manner, he presents a picturesque appearance quite in keeping with his long and honorable record.

For many, many years Mr. Nickerson has been the guiding light of several trade associations. Up until the last one (1936, at The Hague, Holland) he was regularly the leader of the American delegation to the World Congress of Refrigeration. International honors have been heaped upon him. His life has been full and richly rewarded.

The industry should be proud to doff its hat to so fine a gentleman, so able a representative and public figure. And the entire staff of the NEWS joins with the staff of Nickerson & Collins to wish Mr. Nickerson many more happy, hearty birthdays!

## LETTERS

### CONGRATULATIONS FOR DATA ON COMMERCIAL REFRIGERATION

Puffer-Hubbard Mfg. Co.  
Grand Haven, Mich.

Editor:

It is my opinion that the complete report on our industry will eventually be the guide for OPACS, as the Washington officials surely do need help to iron out material problems.

We wish to congratulate your organization for working out the complete data at this time.

A. J. JOHNSON

### CONGRESSMEN SHOULD GET SPECIAL ISSUE OF NEWS

The Bush Mfg. Co.  
Hartford, Conn.

Editor:

I have just had an opportunity to digest your July 16 issue, and should like to compliment you and your associates for doing such a grand job.

I would suggest that you send a copy of this issue to every member in Congress, as well as each of the head men in the OPM office. This company would be willing to pay their share to enlighten these gentlemen before their wives are compelled to buy spoiled foods due to lack of proper commercial refrigeration.

Keep up the good work. As soon as the A-10 rating is handed out, give the boys all the details as to how to get this rating.

E. M. FLANNERY

### A DIFFICULT JOB WELL DONE

Koch Refrigerators  
North Kansas City, Mo.

Editor:

The entire commercial refrigeration industry owes you a vote of thanks for the outstanding job you and the members of your organization have done in this issue.

Those of us who have attempted to compile similar figures for use in establishing quotas and for general statistical compilations well realize the difficulties under which you worked and recognize the accuracy of your results.

If any recognition should be given the commercial refrigeration industry as an indispensable supplier of a definite need, we feel sure that you and your organization will merit no small share of the credit.

Here's to more of the same type of good work. You can count on us for full cooperation.

C. K. LITMAN,  
Distributor of Sales

### MOST COMPLETE AND ACCURATE REPORT ON INDUSTRY

Perfex Corp.  
500 West Oklahoma Ave.  
Milwaukee, Wis.

Editor:

Your report in the July 16 issue of AIR CONDITIONING & REFRIGERATION NEWS is most complete and accurate on the size and scope of the refrigeration industry.

L. B. MILLER

### INFORMATION OF VALUE TO ALL IN INDUSTRY

Virginia Smelting Co.  
West Norfolk, Va.

Editor:

We think that the July 16 issue of AIR CONDITIONING & REFRIGERATION NEWS is packed with information of value to all those who are interested in the commercial refrigeration industry, and congratulate you on your energy and enthusiasm in accomplishing the result in a splendid way.

ROBERT LEBARON

### MORE THAN WE REALIZE

Minneapolis-Honeywell Regulator Co.  
Minneapolis, Minn.

Editor:

The July 16 issue of AIR CONDITIONING & REFRIGERATION NEWS was certainly a very interesting issue and should have gone far to present the refrigeration picture before the proper authorities in Washington. I think your publication is to be congratulated by the entire industry, and I am sure we are all indebted to you much more than most of us realize.

A. B. NEWTON,  
Mgr., Refrigeration Controls Division



## Hotel Expert Recommends Use of Room Coolers Over Central System

Report On Costs Offers Many Suggestions  
On Operation of Hotel Air Conditioning

NEW YORK CITY—Room coolers are less expensive to operate than a central system for hotel guest rooms, and modern refrigeration machines can effect considerable savings in hotels' operating costs over older types of cooling equipment, writes Georges C. St. Laurent in a recent book published by the American Hotel Association entitled "Electric Current Consumption, Costs and Savings."

This book is the second of a series of five discussing the various phases of hotel engineering problems and economies. It surveys the hotels' sources of supply for their electric current, suggests possible improvements, and analyzes important sources of electric consumption such as air conditioning and refrigeration plant equipment, ventilation equipment, elevators, electric cooking equipment, laundry equipment, central vacuum cleaning plant, and illumination facilities.

"The most important single factor affecting the electric consumption in hotels is the amount of air conditioning installed, which may double or even triple the hotel's electric consumption where a large air conditioning plant is in use," the writer observes.

### CITES HIS REASONS

"The advantage of the individual air conditioning units over the large central plant is the fact that they are very flexible in character, both with respect to installation and operation," states Mr. St. Laurent. "They are very silent in operation and can be installed and serviced by the average hotel maintenance mechanic."

An important consideration in installing air conditioners in hotel guest rooms is whether the load added to the electric circuit of the guest room is in excess of the line's capacity. This is more generally encountered with the larger console floor type models than with window units, Mr. St. Laurent writes.

A 1-ton unit having a 1-hp. motor requires about 1,500 to 2,000 watts in starting or about 14 to 18 amperes of electric current from a 110-volt circuit, far above the capacity of the wiring in the average guest room, it is pointed out. It is usually necessary to install special wiring for 1/2 and 1-ton units, and this wiring may add as much as 20% to the cost of the unit.

### WINDOW UNITS BEST?

Hotel operators are advised to investigate the possibilities of using smaller units where the air conditioning load is not in excess of 6,000 to 7,000 B.t.u. Units of 1/2-ton capacity, powered by a 1/2-hp. motor, draw only 10 amperes of current when starting, not too much for the circuit of the average hotel guest room.

Window type units may have advantages over floor type conditioners, Mr. St. Laurent believes, for they require less space. The floor models, unless placed on a board platform, are apt to leave severe indentations in the carpet, he says.

"Some manufacturers of air conditioning equipment have developed small individual type air conditioning units of 3 and 5-ton capacities with B.t.u. ratings of 36,000 and 60,000 that are particularly suitable for air conditioning small dining rooms and other similar spaces, says Mr. St. Laurent.

"These units require a minimum of ductwork, plumbing, and wiring, and are placed on the floor of the

space to be air conditioned, with no special foundations being required. They have attractive looking cabinets that make them suitable for decorative purposes, and are comparatively silent in operation.

"In some instances, several of the 3 or 5-ton units may be installed in different parts of the room, in order to provide adequate distribution if the space is comparatively large or irregular in shape."

There are several ways to effect economies in operating air conditioning equipment, Mr. St. Laurent tells hotel executives. One method is not to maintain too great a differential between inside and outside temperatures. The author gives the following simple rule for determining the proper differential: take one-third of the difference between the outside temperature and 70° F. and add this difference to 72° F. to obtain the temperature desired.

Percentage of fresh air to recirculated air is another important factor in the cost of operating an air conditioning system. Hotel operators are advised to check over their systems carefully, for the loads of some spaces may have been changed since the plant was originally installed and the space may be getting much more fresh air than is necessary.

### HOW TO SAVE CURRENT

If a space is air conditioned only at certain times, the cooling equipment should not be turned on too soon. The hotel's chief engineer should conduct tests to determine just how much time is required to bring a certain space down to the proper temperature. Current can also be saved by not starting up a system too early in the spring, and by shutting it off early in the fall, Mr. St. Laurent points out.

Careful and regular attention to air conditioning systems, even automatic ones, will pay dividends to hotels by reducing costs, the writer believes. Clean spray nozzles and air filters, an adequate supply of condenser cooling water with the proper temperature difference in entering and leaving the equipment, a sufficient supply of refrigerant, and correct adjustment of the automatic control devices are items that require attention.

While many hotels are reducing operating costs by replacing large central refrigeration systems, which supply cooling for the many needs of such an institution, with small, individual automatic refrigerating units, there are ways to cut costs of running the central system, Mr. St. Laurent points out.

### CUTTING BOX COSTS

"Low central refrigeration plant operating costs result from economical use of ice, tightly closed ice box doors with lights out, proper maintenance of ice box door insulation stripping and brine pipe cork covering. The condenser cooling coils must be kept clean and supplied with an adequate amount of cooling water that shows a satisfactory temperature difference in passing through the equipment.

"A sufficient quantity of brine of the proper density must be maintained in the system as well as an adequate quantity of refrigerant. The suction and discharge valves, bearings, cylinder rings, and other important parts must be maintained in first-class condition," warns Mr. St. Laurent.

While the small, individual automatic refrigeration machines don't



**TODAY**  
**I SELL PERFORMANCE**  
**(AND MAKE MORE MONEY)**  
**BY INSTALLING**  
**White-Rodgers**  
**CONTROLS**

**OLD TIMERS FIND WHITE-RODGERS INSTALLATIONS  
MORE PROFITABLE BY ELIMINATING CALL-BACKS**

More and more refrigeration men today increase their business by safeguarding the performance of their equipment with White-Rodgers Refrigeration Controls.

White-Rodgers accurately-calibrated dials and easily-set differential adjusters will save installation time for you — and provide your customers with accurate, service-free performance that is sure to send new prospects your way.

If you are not already using White-Rodgers Refrigeration Controls, try them on your next installation.

Write today for your copy of Catalog R-371.



TYPE 1531  
Low-side Pressure Control. Range, 22 inches of vacuum to 50 pounds — adjustable differential, 5 to 35 pounds.



**WHITE-RODGERS ELECTRIC CO.**

*Controls for Refrigeration • Heating • Air-Conditioning*

1211h CASS AVE.

ST. LOUIS, MO.

require nearly so much attention as the large central plant, they should be inspected carefully and adjusted at least four times a year, Mr. St. Laurent cautions hotel operators. They require lubrication and cleaning, and their systems must be recharged with new refrigerant, he says.

When the seasons change certain adjustments must be made, especially in connection with the cooling water supply. Regular refrigeration servicemen, however, can do this work at little cost to the hotel, writes Mr. St. Laurent.

### City Service Co. Moves St. Louis Quarters

ST. LOUIS — City Refrigeration Service Co., headed by Jas. Daniels, will move in October to a new location two blocks from its present quarters at Delmar and Taylor Aves. Largest household service firm in St. Louis, with 17 servicemen, the move will be made to allow for more shop room and new appliance sales.

### Indianapolis Council Has Successful Year

INDIANAPOLIS — Approximately 100 members and guests attended the recent annual picnic of the Air Conditioning Association of Indianapolis, reports E. F. Hildreth, chairman of the publicity committee.

Fred Helvey, manager of Air Controls, Inc., won the association's golf tournament for the second consecutive year. Awarding of this and other contest trophies was made at the council dinner that night.

Speakers at recent council meetings have included George F. Taubeneck, editor of AIR CONDITIONING & REFRIGERATION NEWS, the late Homer Rupard, engineer of the Indianapolis Water Co., and "Cannonball" Baker, famous endurance driver, who presented a program of popular appeal.

Present membership of the council now includes 41 firms, covering companies engaged in designing, engi-

neering, selling, or installing summer or year-around air conditioning equipment or accessories, and limited to those responsible for equipment the adjustment or regulating of which directly affects the conditioned space. Membership also includes representatives of educational institutions interested in air conditioning instruction or research, public officials, and public utility men.

I. W. Cotton is president of the Indianapolis council, Telford R. Davis is vice president, and George C. Joslin is secretary-treasurer.

### Adsorbers To Protect Phone Equipment

BRADDOCK, Pa.—To combat the adverse effect of common air-borne gases upon the proper functioning of automatic telephone equipment, the Bell Telephone System is installing Dorex adsorbers in the Brandywine telephone exchange here. The equipment is being supplied by the Dorex division of W. B. Connor Engineering Corp.

92 Pages of  
Practical Information  
for  
Refrigeration Engineers



**METHYL CHLORIDE  
MANUAL**



This new Methyl Chloride Manual contains chemical, physical, physiological and refrigerating data . . . tables of thermo-dynamic properties . . . engineering information . . . handling and servicing methods. Send for your free copy today!

For information about nearest source of supply, write to  
THE R. A. H. CHEMICALS DEPARTMENT  
E. I. DU PONT DE NEMOURS & CO. (INC.)  
Wilmington, Delaware  
or National Ammonia Division  
Frankford P. O., Philadelphia, Pa.



## N.Y. Office Licenses Technical Data Export

NEW YORK CITY—The New York office of Export Control is now receiving applications for licenses to export technical data in the form of patent applications and patent amendments, according to Brig. Gen. R. L. Maxwell, administrator.

However, other technical data must be sent to the Washington office as heretofore. The New York office, 500 Fifth Ave., will continue to supply information on, and assist in the preparation of, yellow and green applications for export licenses.

## May Co. Permits Use Of Fuel Saving Devices

BALTIMORE—To aid in the national program aimed toward conserving fuel oil for defense purposes, May Oil Burner Corp. is permitting dealers to install its patented fuel-saving devices on all makes of oil burners. These two devices, the "Ther-May-Lator" and the "Econ-O-May-Inserts," have hitherto been limited to installation on May's own burners.

The Ther-May-Lator acts as a small boiler under the big boiler, and adds additional heating surface.

## Coil and Baffles Rearranged, Heat Exchanger Installed to Correct Hotel Kitchen Job

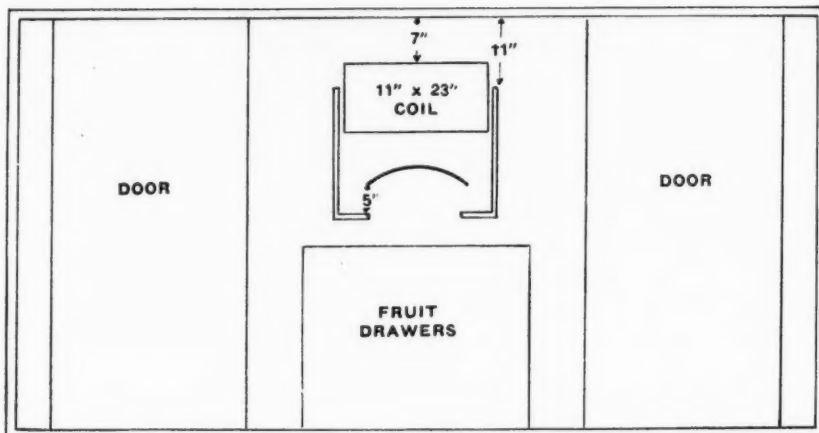


Fig. 1—Showing arrangement of coil and baffles in walk-in cooler before correction.

By H. Kronke

An installation in a hotel kitchen had been giving unsatisfactory service and we were called in to see if we could make it work properly.

The installation consisted of a 1-hp. SO<sub>2</sub> condensing unit, a small short-order box, and an 11 x 6 x 4-foot walk-in service box, in which cooked meats, vegetables, deserts, pastries, and other foods not immediately used were stored and in which a temperature of 38° was wanted. The box had two large doors on the sides and drawers for fruit in the center under the coil.

The box originally had been operated with fair success on two float coils, but after these had been replaced with one fin coil the results had been very poor, the temperatures seldom going below 45° F. and usually being near 50° F. The coil would ice up so rapidly that it had to be defrosted almost daily.

The low pressure switch was found to be set to 6 lbs. cut in and 16 in. cut out. The unit seldom cycled. The refrigerant lines between the unit in the basement and the box on the floor over it had a run of about 75 feet, in part through a boiler room.

### BAD ARRANGEMENT

One of the reasons why the walk-in box was performing so badly was obvious (See Fig. 1.) The top of the coil was 4 inches higher than the baffle, and the drip shield left only 5 inches for the air to flow between baffle and shield. The flues should be equal to 1/4 the width of the box. This 11-foot box then required flues 22 inches wide, or 11 inches on each side. The warm air flues on top were correct but the cold air flues were impossible all around, as can be seen. The coil itself was too high.

The changes necessary were just possible in the space available, but before going to all that work it was decided to figure out the capacity of the coil, to make sure it would improve performances enough to warrant the expense.

The coil measured 11 x 23 x 43 inches, the finned length being 36 inches and the fin spacing 1/10 inches. It was determined that the coil contained about 215 sq. ft. of surface and at a T.D. of 15° F. would have a capacity of 3,870 B.t.u. per hour.

Against this we had a heavy duty box with 268 sq. ft. outside surface, and 2 1/2-inch cork insulation located in a hot kitchen. Allowing for a

16-hour total daily running time of the compressor and figuring no product load, we should have a coil of at least 4,054 B.t.u. per hour capacity. A difference of only 184 B.t.u. This would not be bad, were it not for the fact that a part of a coil is always used as a drier.

A 10° superheat valve will maintain a coil temperature corresponding to the saturation pressure for only about 65-70% of the length of the coil. From there on the temperature of the refrigerant in the coil will gradually rise, until at the expansion valve bulb location, the coil outlet, it is 10° higher than at the coil inlet. If we should attempt to reduce the superheat by opening the valve we would cause an objectionable frostback of the suction line and waste refrigeration.

### EXCHANGER HELPED

The answer was, of course, to install a heat exchanger, which would permit us to use practically 100% of the coil surface and at the same time cool the incoming liquid, which had been superheated in the boiler room.

### Corrected Arrangement

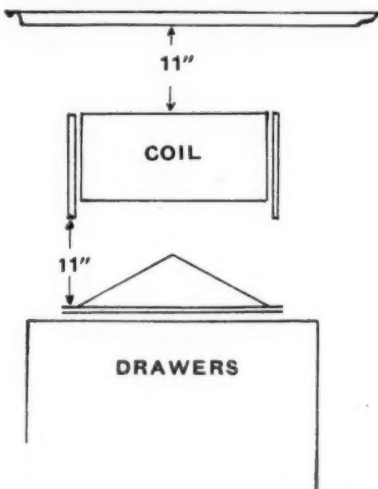


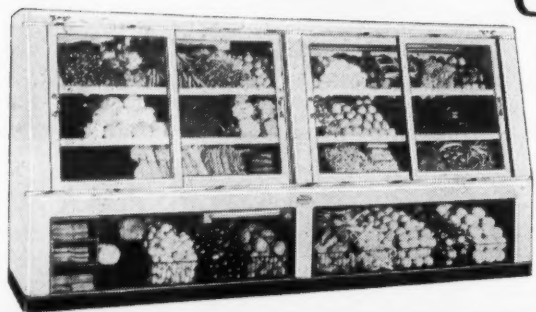
Fig. 2 shows how the coil was lowered and baffles changed to give proper circulation.

With these preliminaries settled, we went to work on the coil and baffles. The coil was lowered to be level with the top of the baffle, the baffles cut away to a width of 13 inches and a simple drain pan built and installed practically on top of the drawers. As an afterthought, a piece of galvanized iron in the shape of an inverted V was soldered onto the drain pan (see Fig. 2) because the temptation to use this ideal place for cold storage would have been far too great for any chef to resist.

Of course, on an installation of this type, some allowance always should be made for a product load, because it actually will be found there. Anything cooked, which is served chilled, or is made in advance for the next day, many times is put into the ice box as it comes from the stove, so as to get it out of the way.

When you see two cooks with towels through the handles of a steaming pot, struggling to get it into the refrigerator, you are not looking at 10 gallons of consommé, as far as you are concerned, but at 10,000-12,000 B.t.u. which by tomorrow must be swallowed by your coil or you'll be back and swallow your words.

## Sherer 1<sup>st</sup> FOR VALUE FOR SALES FOR PROFIT



• Just as the Vegetaire (exclusive with Sherer) builds profits in the produce department, so will it build sales and profits for you. . . . And the Vegetaire is only one item in a complete line of Sherer refrigerator display and storage equipment! Write for franchise details.

**Sherer-Gillett Co., MARSHALL, MICH.**

## STANGARD Prime Surface Cold plates

FOR MAXIMUM  
EFFICIENT  
REFRIGERATION

Specialists in the  
Manufacture of  
all types of  
COLD PLATES

Representatives: A  
few select territories  
are still open. Write  
us regarding our  
unusual proposition.

FOR Locker Plants, Sharp Freezing,  
Ice Cream Cabinets, Hardening Rooms,  
Soda Fountains, Storage Rooms, Milk  
Coolers, Liquid Cooling, Food Count-  
ers and other similar uses.

Write us today for  
complete information and catalogue.

**Stangard-Dickerson Corp., 46-76 Oliver St., Newark, N.J.**



REFRIGERATION  
SUPPLIES AND  
EQUIPMENT



WRITE FOR  
OUR BIG  
CATALOG  
ON YOUR  
LETTERHEAD

SAME CAREFUL,  
CHEERFUL ATTENTION  
BY MAIL OR "IN PERSON"

**THE HARRY ALTER CO.**  
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS  
3 CHICAGO BRANCHES, NORTH, WEST, SOUTH

NEW YORK  
PHILADELPHIA  
BRONX  
JAMAICA

NEWARK  
DETROIT  
CLEVELAND  
ST. LOUIS

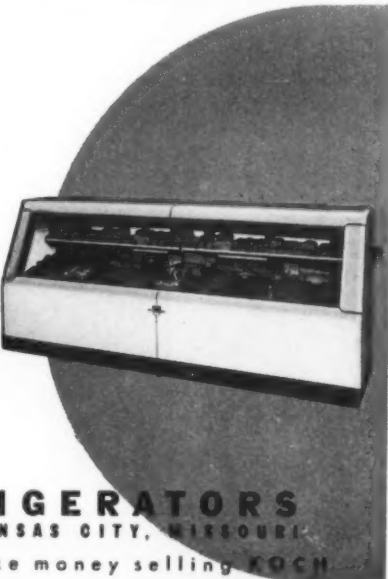


### A CASE OF PERFECT

## PERFORMANCE

Performance that is perfect every minute of the day . . . that's what you get with every Koch display case. Miraflex cooling units mean perfect refrigeration. K-Beam lighting gives added sales impetus to profit-making displays. Welded steel construction and 4-in. insulation . . . permanent satisfaction built right into the case. Investigate the Koch case . . . and the complete Koch line. Write today for complete details, open territories, and Koch selling plan.

**KOCH REFRIGERATORS**  
NORTH KANSAS CITY, MISSOURI  
You'll make money selling KOCH



**3 CATALOGS IN 1**

1. Hermetic Units  
Compressors—Parts
2. Parts—Compressors—Evaporators  
Frigidaire—Kelvinator—Norge  
General Electric and etc.
3. Complete Line Refrigeration  
Parts—Tools—Supplies

Write for Your Copy on Your Letterhead

**SERVICE PARTS CO.**  
1101-03 N. 24th Ave. Melrose Park, Ill.

**OPPORTUNITY**

Manufacturer of low temperature equipment for frozen foods and ice cream desiring to expand seeks an associate to act as treasurer to look after credits, collections, and general office management. Investment of \$15,000 to \$25,000 necessary. The company is a leader in its field and enjoys the highest reputation. References furnished and required. Confidential. Box 1347, Air Conditioning & Refrigeration News.

**Refrigerated Self-Service Cases**

for Fruits,  
Vegetables,  
Dairy  
Products  
—  
Dealers  
wanted

**CAMPBELL REFRIGERATOR CO.**  
Milwaukee, Wis.

**KERO TEST**

Valves and Fittings  
The Standard of the  
Industry  
Kerotest Manufacturing Co.  
Pittsburgh, Pa.

**U. S. GOVERNMENT Specification**

**Filtrine**

Cafeteria Coolers  
Filtrine Mfg. Co., Brooklyn

**Dayton V-BELTS**

Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.

**THE DAYTON RUBBER MFG. CO., DAYTON, OHIO**  
World's Largest Manufacturer of V-Belts

**MUELLER BRASS CO.**  
Port Huron, Mich.  
**TRIPLE SEAL DIAPHRAGM VALVE**  
Longer Diaphragm Life  
Positive Sealing at Three Essential Points

**VIRGINIA**

Dependable Refrigerants  
**VIRGINIA SMELTING CO.**  
WEST NORFOLK, VA.



**National Rock Co.**  
Rockford, Illinois

Manufacturers of  
**Commercial and Domestic  
REFRIGERATOR  
HARDWARE**

**CUSTOMERS**  
Want it...

**DEALERS**  
Wanted!

The market for "packaged" air conditioning is almost unlimited. But no sale is better than the unit you sell! It will pay you to investigate the GR-Lipman line. We have a liberal sales franchise... and equipment that is unequalled. Write for details.

**GENERAL REFRIGERATION DIVISION**  
Yates-American Machine Co.  
Dept. AC-2, Beloit, Wisconsin

**Specify ALCO**  
for  
**Maximum Efficiency,  
Trouble-Free Performance**  
ALCO VALVE CO. ST. LOUIS, MO.

**BE SURE OF DELIVERIES**  
**Buy Fedders COILS**  
AND HAVE THE ADVANTAGES OF  
ALL COPPER CONSTRUCTION  
FEDDERS MFG. CO. BUFFALO, N. Y.

**GALE**  
CONDENSING  
UNITS  
Precision built for  
efficient operation.  
**GALE PRODUCTS**  
1635 Monmouth Blvd. Galesburg, Ill.

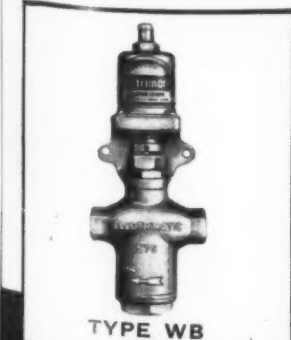
**Panel Type UNIT COOLERS**  
With Deodorant Element  
**KRAMER-TRENTON CO.**  
TRENTON, N. J.

**COMMERCIAL REFRIGERATORS**  
World's most complete line  
of commercial cabinets—  
13 to 84 cu. ft. capacity.  
**MIDWEST**  
MFG. COMPANY • GALESBURG, ILL.

**SAF-T-LOC Individual Lockers**  
have the call. Many unusual  
advantages including the new convertible.  
Sold only thru distributors of  
refrigeration and insulation.  
Get our proposition  
Master Refrigerated Locker Systems, Inc.  
121 Main St. Sioux City, Iowa

**SERVEL Supermetic**

... THE LITTLE MACHINE WITH THE BIG FEATURES  
Truly hermetic! Genuinely serviceable! PLUS a score of "super-features" that no other refrigerating machine in the industry can match. For all temperature ranges. 1/5, 1/4, 1/3, 1/2 HP. Write for details. Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Indiana.



**Electromatic**  
WATER REGULATORS

Write for our catalog describing  
refrigeration and air conditioning  
controls available in sizes and  
types to suit your requirements.

**THE ELECTROMATIC CORPORATION**  
2100 INDIANA AVE., CHICAGO, ILL.

## Servicing Ice Cream Cabinets and Other Low Temperature Equipment

By Arch Black and Dean C. Seitz

**Editor's Note:** This is the thirteenth instalment of a new section on ice cream cabinet servicing in the series of articles which cover servicing of all types of low temperature refrigeration equipment for use in retail business.

Information appearing in current issues covers service complaints on ice cream cabinets and specific remedies for such complaints.

### Service Complaints (Cont.)

**COMPLAINT No. 4—The machine short cycles.**

**Cause No. 1—The temperature control switch does not latch, when the control cuts in.**

Since the temperature control was used on all cabinets using an automatic expansion valve, any cause of short cycling must inherently be looked for in the control itself. In this particular case, the remedy is either to repair in accordance with the manufacturer's instructions or to replace the defective temperature control switch.

**Cause No. 2—Temperature control set on too close a differential.**

The obvious remedy is to widen the differential of the temperature control to eliminate short cycling.

**Cause No. 3—Insufficient brine.**

In most cabinets in which brine is used as a holdover medium and at the same time the bulb of the thermostat is located close to the expansion coils, it is possible to produce short cycling when the bulb is not surrounded by or immersed in the brine.

The obvious remedy is to raise the brine level so that the control bulb will be surrounded by brine rather than by air.

**COMPLAINT No. 5—The machine is noisy.**

All of the causes of this complaint will be listed below. However, their remedies will be found under the corresponding heading as listed for the low side float system. The causes are merely listed below to complete the file for service engineer's reference.

**Cause No. 1—Shipping blocks not removed.**

**Cause No. 2—Fan striking belt or condenser.**

**Cause No. 3—Squeaky belts.**

**Cause No. 4—Tubing vibration.**

**Cause No. 5—Loose pulleys.**

**Cause No. 6—Noisy seal.**

**Cause No. 7—Noisy discharge valve.**

**Cause No. 8—Compressor pumping oil.**

**Cause No. 9—Low oil level in compressor.**

**Cause No. 10—Loose connecting rod, wrist pins, or crankshaft.**

**Cause No. 11—Worn motor bearings.**

**Cause No. 12—Excessive motor end play.**

**COMPLAINT No. 6—Electric bills are too high.**

**Cause No. 1—Any cause listed under Complaint No. 3, namely "Machine runs too much of the time."**

The remaining causes No. 2 to 4 inclusive are exactly the same as the corresponding causes and remedies outlined under the low side float system. In order to keep the record complete for the service engineer the causes will be listed below.

**Cause No. 2—Inefficient motor.**

**Cause No. 3—Cabinet used for making ice or hardening ice cream.**

**Cause No. 4—Cabinet in exceptionally hot location.**

**COMPLAINT No. 7—There is an objectionable odor around the cabinet.**

Causes and remedies of this complaint are exactly the same as those outlined under the low side float system.

**Cause No. 1—Refrigerant leak.**

**Cause No. 2—Alcohol odor.**

**Cause No. 3—Motor bearings hot.**

**Cause No. 4—Motor—electrical trouble.**

## CRMA Committee Protests Tax Bill As Food Menace

(Concluded from Page 1, Column 5)  
will be spoiled and thus wasted in direct contradiction to the "food will win the war" theory held by many government officials.

Also, it was developed that the tax is inequitable in that it is proposed to tax refrigeration components, such as compressors, condensers, controls, etc., and thus there would be in some cases what amounts to a pyramiding of the tax.

Under the existing law, by which only household refrigerators are taxed, a credit was permitted for taxable components, but this is not made clear in the new proposed measure, and it is possible that a tax will be collected from manufacturers of such components as well as from the manufacturer of the complete assembly.

In the instance of a commercial refrigerator, it was pointed out, compressors and other parts of the mechanical refrigeration systems are purchased from establishments specializing in such equipment, and simply added to the cabinet or case. Therefore, if these taxes are to apply separately to the finished product as well as to some of the components thereof, the manufacturers of the completely assembled refrigerator will have paid not one, but an accumulation of such taxes, and with a greater impact on food costs.

When the excise tax schedule was originally drawn, the manufacturers pointed out, it appeared that a large portion of the revenue now expected from the taxes on refrigeration was to have been met by a tax on candy and confections. However, the proposed tax on candy was stricken out on the ground that candy is a food.

If candy is considered an essential food, the point was made, then commercial refrigerators deserve similar consideration, for the candy industry makes liberal use of the benefits of refrigeration, and is a good customer for this industry's products. If it is inadvisable to place a tax directly on any kind of food, it is equally illogical to impose a whole series of such taxes on a class of commodities essential to the distribution and preservation of food.

In addition to Mr. Hart, the delegation from the Commercial Refrigerator Manufacturers Association included Jerry and Bob Tyler of Tyler Fixture Corp.; William Fogel of Fogel Refrigerator Co.; J. D. Harris of The Warren Co.; C. V. Hill, Jr., of C. V. Hill & Co.; George Friedrich of the Ed Friedrich Sales Corp.; and Paul Sullivan, executive secretary of the C.R.M.A.

## Administration Officials 'Campaign' Against Appliance Purchasing

(Concluded from Page 1, Column 3)

ment credit restrictions, but that consumers will be directly told to refrain from such spending wherever possible and instead to invest their money in defense bonds or spend it for products and purposes not conflicting with defense production. In fact, they are already so being told.

First tipoff as to what may be expected along these lines came some weeks back when Associate Director Harriet Elliott of the Office of Price Administration & Civilian Supply told consumers in a radio address that if they really needed to buy a car, refrigerator, or washing machine, they should go ahead and purchase them. "If you had no such plans," she added, "then don't make any. Put your money into defense bonds. They are a much more patriotic investment and you will be saving useful materials for defense."

Similar consumer counsel was given in a radio address Aug. 12 by Undersecretary of the Treasury Daniel W. Bell, who bluntly told consumers they should, as far as possible, direct their expenditures "away from such things as automobiles, electric refrigerators, and washing machines, radios, and the like, which compete with defense production, and toward those things which are not scarce and which do not compete with defense production."

"There are, of course," he stated, "many goods for civilian consumption which can be produced in larger quantities. And every effort should be made to increase the production of such goods whenever it can be done without interfering with the defense program. We as individual consumers can... help to bring this about by spending more on food, health, clothing, amusements..."

**Refrigeration COPPER TUBING--**

HERE'S where we "dehydrate" 'em, folks—that is—remove all moisture. We also remove the back bone of the tubing—make it easy to bend. This Annealing Furnace is the last word in automatic operation—it gives the tubing just the right temper for easy flaring and bending.

**PENN BRASS & COPPER CO., INC.**  
POWELL AVE., ERIE, PENNA.

**'I WON'T BUY A GAUGE WITHOUT THE RECALIBRATOR!'**

THAT has been the attitude of many service men since the RECALIBRATOR feature was incorporated in Marsh Gauges, Thermometers and Recorders. Experience and laboratory tests have shown that when a bourdon-tube instrument is knocked out of adjustment the mere removing and re-setting of the pointer at one point on the scale, does not correct it throughout the entire range. The Marsh RECALIBRATOR gets at the heart of the trouble, however. By simply turning the RECALIBRATOR screw (see illustration) the distortion of the bourdon tube is compensated for and this recalibrates the instrument throughout its entire range. Gauges and dial thermometers with this feature cost little more than the ordinary kind. It is an exclusive Marsh feature.

Ask for the big refrigeration catalog covering this and other Marsh betterments.

**JAS. P. MARSH CORPORATION**  
2067 Southport Avenue Chicago, Ill.

**MARSH Refrigeration Instruments**  
GAUGES—THERMOMETERS—RECORDERS—MERCURY SWITCHES

**SQUARE D IN REFRIGERATION**

Send for your Copy of this Controls Catalog

Includes Pressure and Temperature Controls—High Pressure Cutouts—Solenoid Valves and Related Devices. This comprehensive reference catalog will be sent upon request.

DO IT ALL WITH SQUARE D—SWITCH • PROTECT • REGULATE

**SQUARE D COMPANY**  
REGULATOR DIVISION  
DETROIT • MICHIGAN



For Greater Dust Capacity, Specify—

**AIR-MAZE**  
Permanent Air-Filter Panels  
AIR-MAZE CORP., CLEVELAND, OHIO

Established 1864

**CURTIS REFRIGERATION**

AIR CONDITIONING AND COMMERCIAL

Curtis Refrigerating Machine Division  
of Curtis Manufacturing Company  
1912 Kienlen Ave. St. Louis, Mo.

**PENN** AUTOMATIC CONTROLS AND SWITCHES

Protect the reputation of your product  
Write for Catalog

**PENN ELECTRIC SWITCH CO.**  
GOSHEN, INDIANA

LET US SOLVE YOUR  
**COIL PROBLEMS**  
MARLO COIL COMPANY  
SAINT LOUIS, MISSOURI

**FOGEL REFRIGERATOR COMPANY** Since 1899  
Philadelphia, Penna.

**'THIRST LIEUTENANT'**  
DRY STORAGE BOTTLED BEVERAGE COOLER  
ADDED CAPACITY—QUICKER COOLING  
EXTRA CONVENIENCE—MORE ECONOMY  
NEW EXTERIOR FINISH  
A SENSATIONAL VALUE  
HERE'S YOUR CHANCE TO DOUBLE YOUR VOLUME!

**INQUIRE TODAY!**

**HENRY**

Balanced-Action Diaphragm Packless Valve

The only packless valve that gives you 24 important features of design, construction and operation—all described in catalog No. 95. It's yours for the asking.

LEAK PROOF • PORTS IN LINE • LONGER LIFE • OVAL HAND WHEEL

**HENRY VALVE CO.** 1019 N. SPAULDING AVE. CHICAGO

**NATIONAL DEFENSE COMES FIRST**

BUT—

every possible effort is being made to take care of your needs. Reasonably prompt shipments still being made. Send your order now.

**LARKIN COILS, INC.** 519 Memorial Dr. S.E. Atlanta, Ga.

*Originators of The Cross Fin Coil*

### INVESTIGATE NEW TYLER DRY-KOLD BEVERAGE COOLER



★ SALES POSSIBILITIES exist everywhere, right now, for this better, more sanitary DRY bottle cooler. The complete Tyler line for 1941 is just as up-to-the-minute and salable—with Sectional Steel Clad Walk-In Coolers, Welded Steel Reach-In Boxes and Display Cases to meet every possible need. Write TYLER FIXTURE CORPORATION, DEPT. R-1, NILES, MICHIGAN, today!

**TYLER DEALERS ARE MAKING MONEY!**

To Make a tight connection that will STAY tight

**USE IMPERIAL TRIPLE SEAL FITTINGS**

THE flare extrudes into groove making a leak proof joint even when seat has been badly nicked or marred.

Ask your jobber about Triple Seal Fittings

**IMPERIAL BRASS MFG. CO.**  
565 S. Racine Ave., Chicago

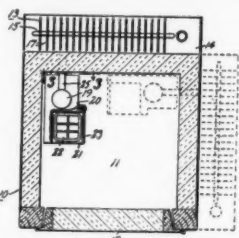
**IMPERIAL**

VALVES • FITTINGS • TOOLS  
CHARGING LINES • FLOATS  
STRAINERS • DEHYDRATORS

## PATENTS

Week of July 22 & 29

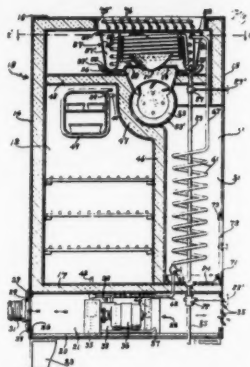
2,249,737. **REFRIGERATING APPARATUS.** Sigurd Mattias Backstrom, Stockholm, Sweden, assignor to Platen-Munters Refrigerating System, Aktiebolag, Stockholm, Sweden, a corporation of Sweden. Application Nov. 27, 1936, Serial No. 112,948. In Germany Nov. 27, 1935. 3 Claims. (Cl. 62-119.5.)



1. In a refrigerating device, a cabinet having a door, an absorption refrigerating apparatus including a generator, a condenser, and an absorber adapted to be located on different exterior sides of said cabinet and an evaporator adapted to be located in different positions within said cabinet, conduits rigidly connecting said generator, condenser, absorber, and evaporator together and providing for flow of fluids therebetween.

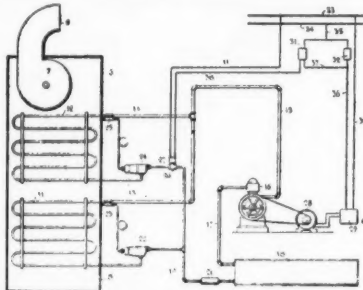
2,249,772. **COMBINATION AIR CONDITIONER AND REFRIGERATOR.** Pietro Maniscalco, Toledo, Ohio. Application

May 18, 1940, Serial No. 335,983. 19 Claims. (Cl. 62-134.)



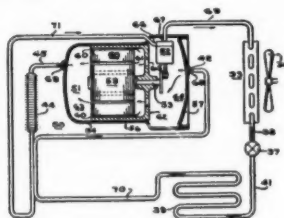
1. In a domestic type of refrigerator including a cabinet provided with a storage chamber and a refrigerating unit, air conditioning means comprising an air channel extending through the cabinet adjacent the storage chamber and including air inlet and outlet means thereon, a jacket having spaced walls providing an annular water chamber interposed in said channel and forming part thereof, a freezing unit associated with said jacket and operable by said refrigerating unit adapted to freeze water in the jacket chamber and cool the air flowing through the channel and jacket.

2,249,856. **AIR CONDITIONING.** Alonzo W. Huff, York, Pa., assignor, by mesne assignments, to Auditorium Conditioning Corp., New York, N. Y., a corporation of New Jersey. Application Dec. 19, 1933, Serial No. 703,136. 29 Claims. (Cl. 62-6.)



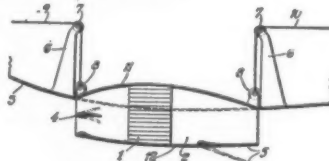
12. In a refrigerative air conditioning system, the combination of refrigerative evaporating means; means for circulating air to be treated, over said evaporating means; a compressor fed by said evaporating means; means for driving said compressor at a substantially constant rate; condensing means for condensing vapor discharged by said compressor; and thermostatic means responsive to the dry-bulb temperature.

2,249,882. **COOLING APPARATUS FOR COMPRESSORS.** Leslie B. M. Buchanan, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Nov. 24, 1936, Serial No. 112,485. Renewed Oct. 21, 1939. 12 Claims. (Cl. 62-115.)



2. In refrigerating apparatus, the combination of an evaporator and a condenser for vaporizing and liquefying refrigerant, a compressor for circulating refrigerant through said evaporator and condenser, a motor for driving said compressor, a fluid-tight casing enclosing said motor and compressor, means for conveying refrigerant gas from said evaporator to said fluid-tight casing.

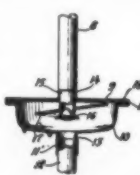
2,249,948. **COOLER PLANT FOR AIR-CRAFT.** Claude Dornier, Friedrichshafen-on-the-Bodensee, Germany, assignor of one-half to Dornier-Werke, G. m. b. H., Friedrichshafen-on-the-Bodensee Germany. Application Nov. 21, 1938, Serial No. 241,551. In Germany, Dec. 15, 1937. 7 Claims. (Cl. 224-57.)



1. In combination with an aircraft having an outer surface and an opening therein, a cooling plant including a nozzle, a cooler proper located within said nozzle, said nozzle and cooler being retractable from and into said opening, and an airflow control flap member swingably disposed within the air inlet portion of said nozzle and substantially in the direction of the air current in all operating positions thereof for effecting airflow into all of said cooler in fully and in partly retracted position thereof.

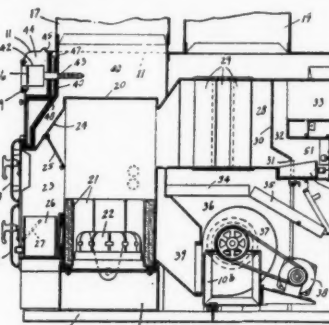
2,249,971. **COOLING SYSTEM PRESSURE RELIEF DEVICE.** David B. Mcconney, Lockport, N. Y., assignor to General Motors Corp., Detroit, Mich., a corporation of Delaware. Application March 31, 1939, Serial No. 265,111. 1 Claim. (Cl. 137-53.)

For use with a cooling liquid circulating system having a vent to atmosphere, a vent valve including a pair of complementary sheet metal stampings peripherally joined to afford a hollow cage open to atmosphere, a vent coupling conduit projecting through the wall of one of said stampings and terminating in a plane beyond said joint, a self-centering valve button to seat on the end of the conduit and to be unseated for the relief of internal pressure, and a valve spring



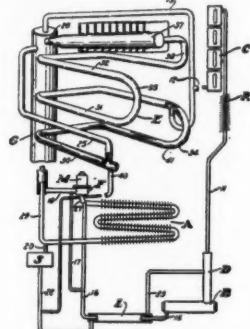
formed with its convolutions initially in a common plane.

2,250,139. **AIR CONDITIONING UNIT.** William B. Shimer, Indianapolis, Ind., assignor to Schwitzer-Cummins Co., Indianapolis, Ind. Application Sept. 20, 1939, Serial No. 295,769. 5 Claims. (Cl. 126-114.)



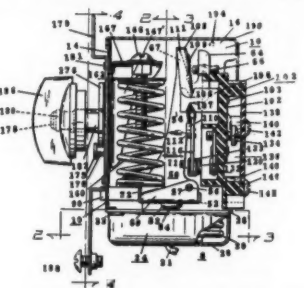
1. In an air conditioning unit, the combination with a heat exchanger, air ducts communicating therewith, and a heat source for said exchanger, of a plurality of control instruments therefor, an instrument box mounted in said unit enclosing said instruments, said box being located in the upper more accessible portion of said unit above said heat source, a control panel on said box exposed for convenient manipulation.

2,250,254. **REFRIGERATION.** George A. Brace, Winnetka, Ill., assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Oct. 10, 1938, Serial No. 234,167. 17 Claims. (Cl. 62-119.5.)



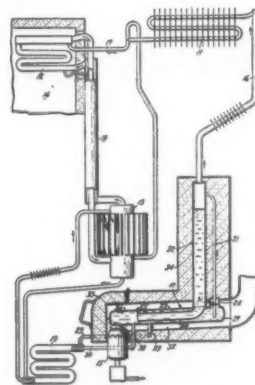
5. Refrigerating apparatus comprising an evaporator, means for supplying liquid refrigerant to an intermediate portion thereof, means for producing a force sufficient to propel liquid in one direction through the evaporator, and means for conveying liquid through a selected portion of the evaporator in the opposite direction against the force of said propelling means.

2,250,274. **CONTROL APPARATUS.** Estel C. Raney, Columbus, Ohio, assignor to Ranco, Inc., Columbus, Ohio, a corporation of Ohio. Application March 1, 1938, Serial No. 193,324. 4 Claims. (Cl. 297-3.)

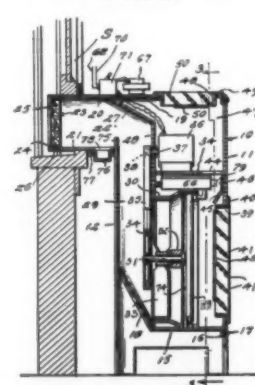


1. A temperature responsive element including a fluid containing tube, a section of said tube being reversed upon itself and said reversed section and adjacent tube section being formed in a helix, the convolutions of the helix substantially touching one another.

2,250,288. **REFRIGERATION.** Carl T. Ashby, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Dec. 3, 1938, Serial No. 113,978. 6 Claims. (Cl. 62-119.5.)



1. Absorption refrigeration apparatus including a generator having a horizontally elongated portion, a partition forming a weak solution chamber in one end of said portion, a casing forming a flue around said horizontal portion.

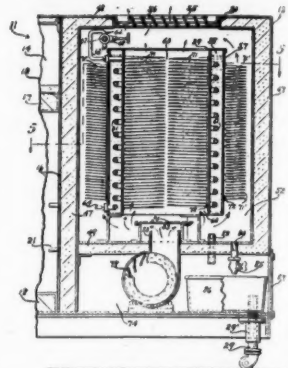


2,250,352. **AIR CONDITIONING DE-**

VICE. Clarence A. Bolcom, Ionia, Mich. Application Aug. 23, 1939, Serial No. 291,432. 4 Claims. (Cl. 98-39.)

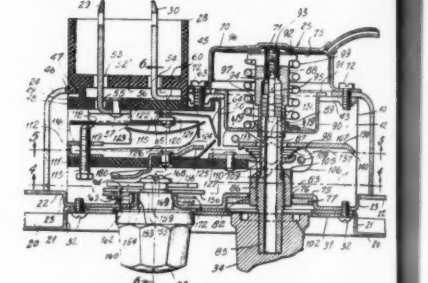
1. An air conditioner comprising an outer jacket, an air duct in said jacket, said jacket having an air outlet through a wall thereof forwardly of said duct, an intake extension carried by said duct extending rearwardly of said jacket, a filter in said extension, a fan intersecting said duct, a diffusing screen in said duct forwardly of said fan, a baffle at the inner end of said intake extension.

2,250,386. **COMBINATION REFRIGERATOR AND AIR CONDITIONER.** Pietro Maniscalco, Chicago, Ill. Application Nov. 1, 1940, Serial No. 363,889. 12 Claims. (Cl. 62-140.)



2. In a domestic type of refrigerator including a cabinet having a storage compartment with cooling means therein and having an operating unit to actuate said cooling means, an air conditioner comprising an insulated chamber in said cabinet provided with air inlet and outlet means therein, a doubled-walled jacket in said chamber providing a liquid containing space within its walls and providing an air channel centrally therethrough.

2,250,437. **REFRIGERATOR CONTROL SWITCH.** Lawrence M. Persons, St. Louis, Mo., assignor, by mesne assignments, to Automatic Control Corp., St. Louis, Mo., a corporation of Delaware. Application Feb. 8, 1937, Serial No. 124,021. 28 Claims. (Cl. 200-83.)

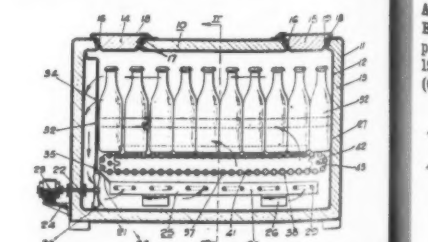


1. In a device of the kind described, a switch, means responsive to physical conditions, means adapted to operate said switch at a predetermined condition of said responsive means including a lockable member, separate means shiftable to lock the lockable member and maintain the switch against operating movement and means movable independently of said lockable member interconnecting said separate means and said responsive means to release said separate means when said responsive means attains a predetermined condition.

2,250,438. **COMPENSATOR FOR REFRIGERATION CONTROL.** Lawrence M. Persons, St. Louis County, Mo., assignor to Automatic Control Corp., St. Louis, Mo., a corporation of Delaware. Application Aug. 20, 1937, Serial No. 160,065. 13 Claims. (Cl. 62-7.)

10. In a control of the kind described, a thermal unit, a load adapted to operate at a predetermined minimum current value to produce a given effect, a pair of heaters, means connecting the two heaters and the load in series, means operated by the thermal unit to shunt one heater, the relative resistances of the two heaters and load being such that with them in series as aforesaid they do not admit enough current to operate the load to produce said effect.

2,250,557. **COOLER FOR BOTTLED BEVERAGES.** Robert H. Tall, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Nov. 5, 1938, Serial No. 239,003. 13 Claims. (Cl. 62-102.)



1. In a dry cooler for packaged beverages and the like, the combination of an insulated cabinet having side, top, and bottom walls, a substantially flat cooling unit in said cabinet and near, but spaced from the bottom thereof, said cooling unit having air passages, an air baffle near one end of said cooling unit, a motor-driven fan near said baffle for blowing the air in said cabinet underneath said cooling unit and along and through the air passages thereof.

2,250,612. **REFRIGERATING APPARATUS.** Elio C. Tanner, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application March 21, 1939, Serial No. 265,242. 8 Claims. (Cl. 62-103.)

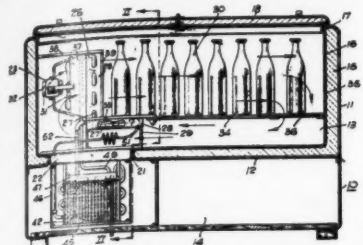
1. In refrigerating apparatus, the combination of an insulated chamber defining a storage space, a cooling unit therein, a receptacle associated with said cooling unit to collect water condensed thereon

(Concluded on Page 13, Column 1)



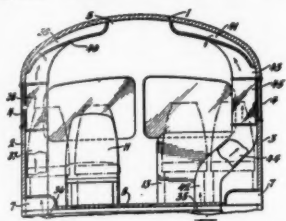
# Patents (Cont.)

(Concluded from Page 12, Column 5)  
a portion of said cooling unit being in heat exchange relation with said recep-



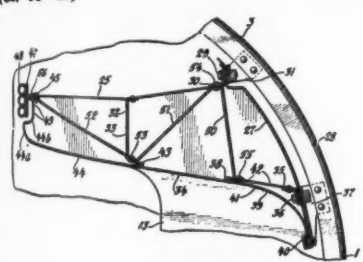
tacle to freeze water therein during light and normal refrigerating loads.

**2,250,618. AIR CONDITIONING SYSTEM.** Dwight E. Austin, Pontiac, Mich., assignor to Yellow Truck & Coach Mfg. Co., Pontiac, Mich., a corporation of Maine. Application Feb. 25, 1939, Serial No. 258,414. 6 Claims. (Cl. 98-10.)



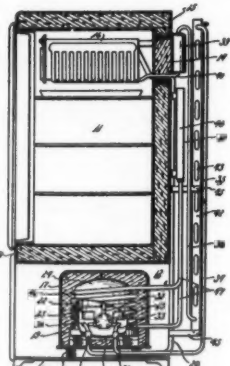
1. In a passenger coach having indented wheel wells in the side walls and a loading platform ahead of one of the wells, a decency panel extending upwardly between the loading platform and said wall, and a vertically offset conduit having its lower portion extending upwardly from the floor and inwardly of the well behind the panel.

**2,250,619. COMBINED PACKAGE RACK AND AIR DUCT.** Dwight E. Austin, Pontiac, Mich., assignor to Yellow Truck & Coach Mfg. Co., Pontiac, Mich., a corporation of Maine. Application May 1, 1939, Serial No. 271,116. 4 Claims. (Cl. 98-2.)



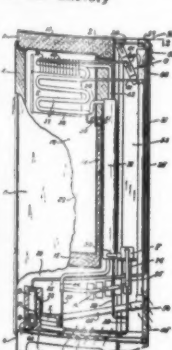
1. In a passenger coach, a hollow structure projecting inwardly above the passenger seats with its upper wall providing a package shelf, a protection guard supported at the inner side of the structure with a portion projecting above the upper wall.

**2,250,648. REFRIGERATING APPARATUS.** Lawrence A. Philipp, Detroit, Mich., assignor to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland. Application March 28, 1939, Serial No. 264,604. 7 Claims. (Cl. 62-116.)



1. Refrigerating apparatus, including a cabinet, a compressor arranged in said cabinet and having a condenser disposed along the side wall of said cabinet, and a secondary condenser independent of said first mentioned condenser arranged adjacent said condenser for inducing air currents through said condenser.

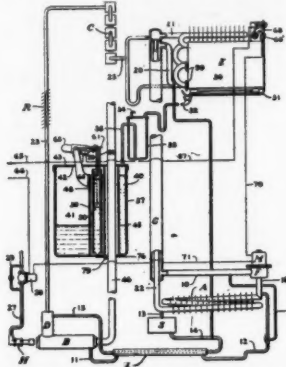
**2,250,944. REFRIGERATION.** George A. Brace, Winnetka, Ill., assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application July 20, 1938, Serial No. 220,194. 21 Claims. (Cl. 62-119.5.)



1. Refrigerating apparatus comprising a cabinet, means forming a cooling air duct with one wall of said cabinet, a condenser positioned in said air duct and extending substantially to the top wall of said cabinet, a rectifier mounted in the top rear portion of said air duct and connected to said condenser, means for supplying refrigerant vapor to said rectifier, an evaporator in said cabinet, and means for conveying refrigerant liquid from said condenser to said evaporator.

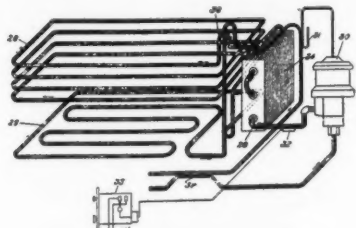
**2,250,945. REFRIGERATION.** George A. Brace, Winnetka, Ill., assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Oct. 21, 1932, Serial No. 236,274. 23 Claims. (Cl. 62-5.)

1. A refrigerating apparatus comprising a heat absorbing unit, means for supplying a heat absorbing medium to said heat absorbing unit, means for collecting



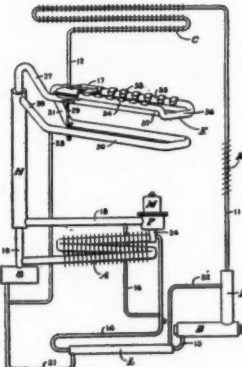
drip water discharged from said heat absorbing unit, said collecting means being positioned in a space to allow free evaporation of the collected drippings, and means utilizing the accumulation and evaporation of the drip water for controlling said medium supply means.

**2,250,952. COOLER WITH WET AND DRY STORAGE.** Robert H. Guyton and Laurence H. Herman, Muskegon, Mich., assignors to The Brunswick-Balke-Collender Co., Chicago, Ill., a corporation of Delaware. Application February 27, 1939, Serial No. 258,651. 9 Claims. (Cl. 62-4.)



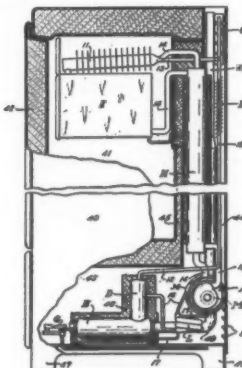
1. A cooler comprising a main cabinet, a dry cooling compartment and a wet refrigerating compartment in the cabinet, a separate closure for each compartment, a portion of the wall of the wet cooling compartment also forming a partition between the wet and dry compartments, a refrigerating system including a compressor, a motor therefor, an expansion valve, and a coil surrounding and below the wet compartment, a portion of said refrigerating coil positioned in the dry compartment, and control means in the dry compartment for regulating the operation of the cooling coil with respect to both compartments.

**2,250,960. REFRIGERATION.** William H. Kitto, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application July 20, 1938, Serial No. 220,193. 15 Claims. (Cl. 62-5.)



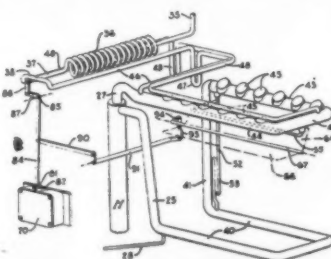
1. Refrigerating apparatus comprising a plurality of evaporating sections, means for supplying liquid refrigerant and a pressure equalizing medium to said evaporator sections, and refrigeration demand responsive means for diverting the liquid refrigerant and pressure equalizing medium into a selected evaporator section.

**2,250,970. REFRIGERATION.** Donald G. Smellie, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application April 25, 1938, Serial No. 204,019. 13 Claims. (Cl. 62-119.5.)



5. Refrigerating apparatus comprising a cabinet including an insulated cooling chamber, a shallow mechanism compartment beneath said chamber and a vertically extending cooling flue, refrigerating apparatus in said cabinet including an air cooled condenser in said flue, an evaporator in said chamber and a boiler and an absorber in said compartment, means connecting said boiler and absorber to form an absorption solution circuit.

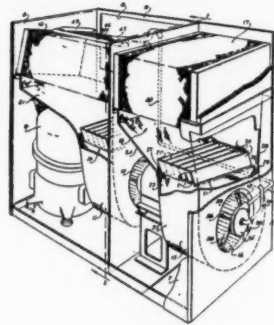
**2,250,971. REFRIGERATION.** Donald G. Smellie, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a cor-



poration of Ohio. Application July 20, 1938, Serial No. 220,202. 27 Claims. (Cl. 62-5.)

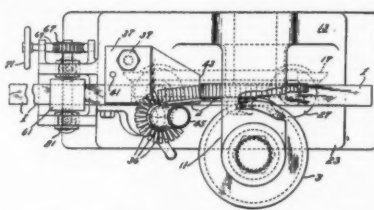
27. In a device of the character described, a source of supply of liquid, a plurality of liquid receiving sections and a liquid flow directing means connected between said source of supply of liquid and said sections, said liquid flow directing means including a deformable part operable when deformed to direct the liquid from said source to a selected one of said sections.

**2,250,978. AIR CONDITIONING APPARATUS.** Alfred Welland, Philadelphia, Pa., and Joseph R. Zwickl, East Orange, N. J., assignors, by mesne assignments, to Allan B. Crouch, Schenectady, N. Y., as trustee. Original application June 11, 1936, Serial No. 84,758. Divided and this application Nov. 30, 1938, Serial No. 243,160. 8 Claims. (Cl. 62-140.)



2. A room cooler unit comprising, in combination, condenser and evaporator elements; means for circulating separate air streams over said elements; means for collecting condensate from the evaporator side; and means for disposing of the collected condensate into the path of air flowing over said condenser including liquid absorbent material, and means for pressing said material against the surface of said condenser and also providing a chamber to receive condensate from said collecting means to wet the absorbent material.

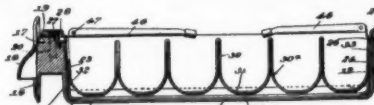
**2,251,074. METHOD OF MAKING HEAT EXCHANGER FINS.** Floyd J. Sibley, Detroit, Mich. Application Jan. 19, 1939, Serial No. 251,665. 9 Claims. (Cl. 29-157.3.)



1. The method of making a flanged heat exchanger fin from a bar of ductile metal which consists in, setting a sharp edged tool slightly below and slanting into a part of the face of the bar and progressively cutting and thrusting to upset some metal to form a projection thereon, and shaving off the projection with sufficient metal from the surface to form a flanged fin having an integral junction thicker than either the fin or the flange and having a sharp outer corner and a rounded inner corner.

## REISSUES

**21,860. ICE CUBE PAN.** Michael K. Buchanan and Albert G. Horton, Norfolk, Va. Original No. 2,043,881, dated June 9, 1936, Serial No. 682,157, July 25, 1933. Application for reissue July 17, 1937, Serial No. 154,304. 34 Claims. (Cl. 62-106.5.)

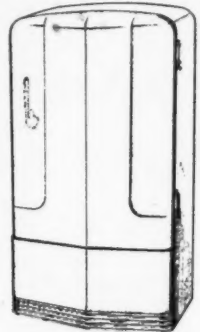


1. In an ice cube pan, a grid having a plurality of transverse partitions walls and a plurality of longitudinally extending walls, means for connecting the partitions to an end wall of the pan to provide for a limited outward movement of the partitions, and means for raising the longitudinally extending walls and the partitions through a limited movement for breaking the ice cubes loose from the pan.

## DESIGNS

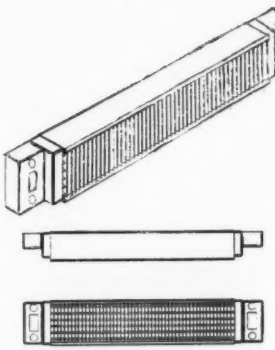
**128,379. DESIGN FOR A REFRIGERATOR CABINET.** Ralph E. Kruck, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., a corporation of Pennsylvania. Application Oct. 19, 1940, Serial No. 95,939. Term of patent 7 years.

The ornamental design for a refrig-



erator cabinet, substantially as shown and described.

**128,514. DESIGN FOR A HEAT EXCHANGER CORE UNIT.** Fred M. Young, Racine, Wis. Application Nov. 4, 1940, Serial No. 96,287. Term of patent 14 years.



The ornamental design for a heat exchanger core unit, as shown.

## PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

**Specify DRYERS**  
CHARGED WITH DAVIDSON'S SILICA GEL  
THAT BEAR THIS LABEL  
Ask your Jobber

# SPORLAN VALVES

**Use CHICAGO SEALS**  
for seal replacements  
A complete line in all sizes  
CHICAGO SEAL CO.  
20 North Wacker Dr., Chicago

**BUNDY TUBING**  
ENGINEERED TO YOUR EXPECTATIONS  
BUNDY TUBING CO., DETROIT

**BUY ACME**  
WATER COOLERS  
JACKSON ACME INDUSTRIES MICH.

**Water Valves**  
Amino No. 614 Water Valve is used to regulate the amount of water passing through water-cooled condensers. It has a double bellows seal, removable body seat, is free from chatter and will operate on all refrigerants except ammonia under water pressure from 15 lbs. to 200 lbs.  
Standard connections 3/8" x 3/8" F.P.T. On special order we supply 1/2" x 1/2" F.P.T. at no extra cost.  
**AMERICAN INJECTOR COMPANY**  
1481 FOURTEENTH AVENUE, DETROIT, MICHIGAN  
Pacific Coast: Van D. Clothier, 1015 E. 10th, Los Angeles  
Export: Borg-Warner International Corporation, 210 S. Michigan Ave., Chicago, Ill.

**BAIRY CASE**  
**WALK IN**  
**VEGETABLE CASE**  
**STREAMLINER**  
**REACH IN**  
**Increase your Income the PERCIVAL way**  
Sell the "Dealer's Choice"—the line that's COMPLETE in model, size, purpose and price—the PERCIVAL LINE. Write for attractive money-making proposition.  
"1886-55 years of Satisfactory Service-1941"  
**C. L. PERCIVAL COMPANY, BOONE, IOWA**

**A SINGLE CONTROL Universal in Application**  
**THE NEW POLARTRON**  
FOR PRESSURE CONTROL UP TO 1 H.P.A.C.  
Separate "On and Off" Range • Universal Range • Capillary Pressure Connections • Freeze-Proof • No Shut-Off • Minimum Free Service • "Cooling Control" on Cut-In or Cut-Out • No Short Cycling • Polartron Equipped Compressor can be Converted to Produce Free-Frost Without Change  
**MINNEAPOLIS-HONEYWELL**  
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY  
2807 FOURTH AVENUE SOUTH, MINNEAPOLIS, MINNESOTA  
REFRIGERATION Control  
Note these Advantages

**The RANCO DUAL O**  
—With Every Type O Feature!!  
You wanted it—and we've built it for you—in Dual Pressure and Dual Temperature models.  
All the advantages of Ranco Type O design and construction! The same visible scale. The same transferable knob and lock plate. All combined—in one sturdy, compact unit!  
Ask your jobber to show you this newest Ranco Commercial Control.  
**Ranco INC.**  
COLUMBUS, OHIO





## CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words four cents each. Three consecutive insertions, \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

### POSITIONS AVAILABLE

**SALES ENGINEER** by Manufacturer's Agent selling a product used in ventilation and air conditioning. Should be capable of making take-off from mechanical plans. Please give full information, experience, age, etc. Box No. 1348, Air Conditioning & Refrigeration News.

### POSITIONS WANTED

**AVAILABLE SOON.** 25 years of experience in responsible positions designing, manufacturing, selling, and installing refrigerating and air conditioning machinery and equipment and complete installations. Competent and original engineer. Effective on sales. Hard worker. Good habits. Present enterprise jeopardized by material shortage. Box No. 1349, Air Conditioning & Refrigeration News.

### FRANCHISES AVAILABLE

**SELL CHIL-KWIK products.** Everything in direct draw beer dispensing systems, walk-in pre-coolers, beverage coolers, refrigerated faucets. A CHIL-KWIK product for every beer dispensing application. Smart distributors everywhere are cashing in on CHIL-KWIK's phenomenal acceptance. Write for catalogue today. CHIL-KWIK CORP., Dept. N, Milwaukee, Wis.

**DIRECT FACTORY connection.** Sell Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Refrigerating Units, to Meat Markets, Grocers, Taverns, etc. Financing arrangements to help sell. Write for full information or see EHRICH REFRIGERATOR MFG. CO., Dept. A, St. Joseph, Mo.

**CASH IN** on the General Refrigerator's new line of Display Cases, Reach-In Cabinets, Walk-In Coolers, Beer Pre-Coolers, Bottled Beer Display Cases and Produce Refrigerators. Prices lowest in the industry comparing equal quality and specifications. Manufacturing for almost half a century high quality commercial refrigerators. Write for catalog. GENERAL REFRIGERATOR & STORE FIXTURE CO., 519-21-23 Bainbridge St., Philadelphia, Pa.

**COMPLETE LINE** of Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Dairy Wall Cases, New type Royal Beverage Coolers and Beer Equipment available to reliable distributors. New features, new ideas, immediate deliveries. Send for prices and literature. ROYAL STORE FIXTURE COMPANY, 847 North Broad Street, Philadelphia, Pa.

### EQUIPMENT FOR SALE

**SURPLUS STOCK:** Brand new Westinghouse low-sides, complete with coils, valves, fans, manual controls, etc. One to two ton capacity. AC Models \$32.50 each; DC models easily converted to AC \$18.50 each. 1/2" Mueller strainers with 1/2" to 3/4" flare nuts 60¢ each in lots of 5. Complete stock "as is" or rebuilt commercial units. Three fan Frigidaire blower suitable for use on 3 HP condensing unit, ideal for beer cooler. "As is" and rebuilt refrigerators. Write for prices. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

**BRAND NEW**—nationally known—in original crates, fin coils, ice makers, domestic evaporators, flooded and dry expansion type, high side floats, heat exchangers. Large variety of sizes for show cases, walk-in coolers, ice cream cabinets. Phenomenal discounts! Immediate delivery! Send us your requirements. MARCO SALES, INC., 41 Union Square, New York City, N. Y.

### REPAIR SERVICE

**CONTROL REPAIR Service.** Domestic controls reconditioned equal to new at a small cost. All work guaranteed for one year. Prices upon request. UNITED SPEEDOMETER REPAIR CO., INC., 342 West 70th Street, New York City.

★★★★★★★★



**Mills Condensing Units**  
By Mills Novelty Company  
4100 Fullerton Ave., Chicago, Ill.

★★★★★★★★

## Licensing Planned To Enforce Control of Instalment Selling

(Concluded from Page 1, Column 3)

called for on household oil burners, stokers and furnaces, household water heaters, plumbing and sanitary fixtures, and home air conditioning systems.

Any other materials and services required for repairs, alterations, and improvements to existing real estate property on which the deferred balance does not exceed \$1,000 could be purchased over an 18-month period with no down payment.

It was expected that a revised draft of the proposals would be issued this week, based on suggestions by the dealers, bankers, and other interested business men to whom the tentative draft was first presented for their approval and discussion. The regulations, when issued, will make effective an executive order of President Roosevelt charging the Federal Reserve Board to use World War powers to restrict credit.

### LICENSES AFTER JAN. 1

"Teeth" would be put into the regulations under a system requiring licenses after Jan. 1 for all persons selling on an instalment credit basis, extending instalment loans, or engaged in financing such businesses. Licenses would be revoked for any violation of the regulations.

The board's proposals would require each business to obtain a license from any Federal Reserve bank or branch, beginning Jan. 1. It is stipulated that general licenses would be given to continue credit business without further formality until the end of this year.

Purpose of the regulations is to hold prices down by reducing instalment buying and thereby curtailing the volume of purchasing power, and to curb the manufacture of products which use materials needed for the production of defense equipment, according to Marriner S. Eccles, board chairman. Mr. Eccles said that "it is proposed in the initial regulations, covering only a limited number of articles and applying only moderate terms, to lay a basis for such subsequent coverage and adjustment of terms as experience in this field and economic development may be indicated to be necessary."

Regular charge accounts, straight loans payable in lump sums, and cash transactions would not be affected, nor would instalment contracts made before the regulations go into effect.

The regulations specifically exempt:

Any extension of credit over \$1,000 for materials and services for real estate repairs, alterations, and improvements, provided the bona fide purchase price does not exceed 50% of the deferred balance.

Any extension of instalment-sale credit which is to be repaid at approximately equal intervals, and approximately equal instalments, the last of which would mature within four months after the extension.

Any extension of credits to a wholesale or retail dealer of any listed article to finance their purchase for re-sale.

## Novel Ad Campaign Used In Cincinnati

(Concluded from Page 1, Column 4)

Cincinnati Gas & Electric Co., local utility, contributed a little more than twice the total amount raised by the wholesale outlets.

The series of nine advertisements was run in all three Cincinnati dailies—"Enquirer," "Post," and "Times-Star." The schedule broke July 7 in the "Enquirer" and is slated to wind up in the "Times-Star" Aug. 26.

Featuring plenty of white space and very little copy, each of the nine advertisements consists of a series of four cartoons and a running four-line jingle.

Also included in each of the advertisements was a streamer carrying some such generalized statement as "Trade in! Enjoy refrigerator satisfaction in new measure!" and a list of the 11 makes of refrigerators represented by sponsoring distributors.

## Write Your Congressman!

(Concluded from Page 1, Column 4)

Congress is showing signs of life. It is messing up some of the Administration's plans, alleviating some civilian suffering, restraining the impatience of the warmongers. Congressmen have the interests of their constituents at heart. And Congressmen are paying attention to letters from home now more than ever.

It may strike you, Mr. Dealer or Distributor, as foolish to write a letter to your Senators and district Representative, pointing out that Refrigeration Is Essential to America's Health. You wonder if they will pay any attention to it. Friend, they will. And it's important that he get your message. Your business is at stake. And America's health is at stake, also.

The beauty of your position is that you are not only necessary to the nation as an employer and taxpayer, but that the service you sell, refrigeration, is essential, too. Enough people don't know that yet in Washington. They are occupied with too many other problems, they know too little about refrigeration, to be influenced much with the few voices crying in the wilderness.

One of two things will impress upon Washington the necessity of

refraining further from hampering the refrigeration industry. The first would be a series of epidemics resulting from food spoilage. That would be a bitter way for the country to learn the lesson. It also would come too late to do you any good.

The second method, and the one we earnestly recommend, is for thousands of dealers to write their Congressmen that they are in a business which *must* be considered essential by anyone who will take time to examine the facts.

Nowadays writing to your Congressman doesn't imply that you are some kind of freak. It is really a patriotic duty, because such correspondence provides the nation's lawmakers with a continuous poll of public opinion. More and more of our better citizens are doing it.

For example, Margaret B. Cockrell, widow of the fighting founder of the News, has been writing her Congressmen regularly this summer. She believes she has been getting some results, and she is certainly getting some attention. In so doing, she feels she is discharging her duties as a citizen; and, by golly, she's right.

You don't have to write a

literary masterpiece. Just tell your Congressman how unfair it is to classify refrigeration simply as "durable goods." Tell him how refrigeration has prolonged the life expectancy of the average American, through virtual elimination of many food-borne diseases. Explain to him that refrigerated food storage greatly reduces the strain on the railroads. And mention, incidentally, that the continued existence of your own business, and the jobs of your employees, are threatened seriously.

He'll listen to you as a voter, and if your collective voice is strong enough, Congress as a whole will listen, and do something to help you.

To those who think "this whole thing will blow over," we might point out that OPACS has made its 50% reduction in household electric refrigerator manufacture retroactive to Aug. 1. (Manufacturers whose output is less than 5,000 units a month were cut 30%; those whose output runs from 5,000 to 16,000 were cut 40%.) That means you'll feel the squeeze sharply from now on. And it's our guess that there will be another production cut in a few months if the industry doesn't shout loud enough and often enough. The "industry" is YOU.

Write your Congressmen today, while it's on your mind!

**Refrigeration Engineers say:**

**"I'll stake my reputation on any job... with**

**A-P RESPONSIBLE Refrigerant Control!"**

On Commercial or Industrial Refrigeration and Air Conditioning installations large or small, there's a little matter of "Control" that governs the efficiency and satisfaction of the whole job.

Adding RESPONSIBILITY in this important "detail" is a task well done by A-P DEPENDABLE VALVES... done so well, in fact, that rare trouble calls are seldom if ever diagnosed as "valve-

trouble." "It can't be the Valve" is the favorite remark of men who have proved how A-P Valves cut down service call-backs.

When your customer spends good dollars, and you spend good time on a new installation, be sure to get RESPONSIBLE Refrigerant Control! How? With A-P DEPENDABLE VALVES, of course. Try them once and YOU'LL know, too.

**A-P DEPENDABLE Refrigerant Valves**

★ Progressive Service Engineers use and recommend—and aggressive Jobbers stock and talk — A-P Products.

**AUTOMATIC PRODUCTS COMPANY**  
2450 NORTH THIRTY-SECOND STREET  
MILWAUKEE WISCONSIN  
Export Department  
100 Varick Street . . New York City

See the "X-RAY Visualizer" showing how DEPENDABILITY is built into A-P Valves—at your favorite Jobber!

